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ABSTRACT

This seminar focused on the need for increased use of educational planning by politicians and administrators in developing and developed countries. The report includes examples of educational planning in centralized governments such as those of France and Rumania as well as in large Federal decentralized governments such as those of Brazil and India. Management techniques and program planning and budgeting systems in particular are discussed. Appendixes contain reports of working groups and lists of participants. (JF)

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Administrative aspects of educational planning

Contributions to a seminar
held at the International Institute
for Educational Planning
23 June - 4 July 1969

Organized by Raymond Lyons

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PREFACE

Every country, whether industrialized or developing, is faced today with the same necessity: that of ensuring, by suitable policies, a continuous, balanced, and if possible accelerated social and economic development. In most countries the method chosen for this purpose has been social and economic planning; and even in those countries where the word 'plan' itself is avoided, government policies are founded on the study and forecasting of future social and economic development.

The development of educational systems tends, consequently, to be woven more and more closely into the general economic and social pattern; and the goals of educational planning become integrated in the general plan with which they are associated, not merely as one of the basic financial options but also as both ends and means in national planning itself.

In most countries, however, the introduction of planning into the existing administrative framework, and the setting-up of a new and active 'Ministry of Planning' or similar organism, have brought difficult problems of adaptation and change.

On the one hand, the introduction of a new and specialized Ministry, to inaugurate and co-ordinate the preparation and execution of a social and economic plan, is an enterprise fraught with hazards of many kinds. From a structural point of view, how will this new entity be fitted in among the traditional ministries and integrate its activities with theirs? How can its arduous but essential work of initiating and co-ordinating - and, at times, of directing - be made acceptable to the other ministries, and particularly to the all-powerful Ministry of Finance? The multiplicity of solutions to these problems that have been tried demonstrates the great variety of structures and administrative methods in different countries and, at the same time, the strength of the resistance which the new institutions have encountered.

On the other hand, whatever the degree of authority conferred on the Planning Ministry, the extension of planning to the entire range of economic and social activity - education included - necessarily implies wide participation by all ministries, within their respective fields of competence, in the preparation and elaboration of the plan. This participation, which must be extended in various ways to the regional and local levels of administration, presupposes a fundamental transformation of administrative mentalities and methods. The 'pioneering' spirit of planning must replace the routine of annual budgeting; to the criterion of economy, engraved on the heart of every administrator of the old school, must now be joined the new criteria of efficiency and rate of return in financial and administrative direction. The organisation of planning operations will lead, in no small measure, to a radical re-appraisal of the structures, the means and the methods of traditional administrations, so as to adapt them to their new, difficult, but inspiring tasks.

Preface

The same is true regarding the planning of the quantitative and qualitative development of systems of instruction and training. In every country the introduction of the idea of planning, the creation of a Planning Ministry, the starting of the planning process, have brought before Ministries of Education problems for which they were, at the outset, manifestly ill-prepared.

Administrative and technical machinery has to be set up, for a start, as much in the framework of the Ministry of Planning as in that of the Ministry of Education, based on a logical division of responsibilities - machinery that can undertake, in close liaison with research organisations, a reasoned study of the possible and desirable future of the educational system, and can proceed to policy decisions and their effective implementation. At the same time, the personnel of the sections responsible for the preparation and execution of the plan must be given new, or additional, training, essential if they are to be fully capable of undertaking these new tasks. It is to these two related fields that the Seminar on the Administrative Aspects of Educational Planning, held by IIEP in June-July 1969 for the directors and professors of Unesco Regional Centres for Planning and Administration and representatives of national training centres (University or other), directed its attention.

Papers presented by various participants, and a report of the Seminar prepared by Raymond Lyons, are offered in this volume in the hope that they will provide help and inspiration to all those - politicians, administrators, experts and others - who are continually seeking the right solutions in a field in which the coming years will see no lessening of either importance or urgency.

The Institute expresses its appreciation to all those who participated in this seminar, and especially to the authors whose papers are reproduced here. The views expressed in the papers are, of course, those of the individual authors, and do not necessarily commit the Institute or Unesco.

Raymond Poignant
Director, IIEP

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Report of the seminar

REPORT OF THE SEMINAR

by Raymond F. Lyons

The task of educational administration in the next decade is to develop, change and adapt educational services in a period of unprecedented change. Knowledge is growing more rapidly than ever before in human history. New jobs and the techniques of the old ones are evolving so swiftly that the mastery of them is not a once-and-for-all process but involves continuous study and re-learning throughout professional life. A rising demand for education, for social and professional advancement, is associated with a searching and critical attitude to education by students, teachers, parents, and employers and a desire to participate in its operation and improvement.

The experience of recent years and the demands for education which must be met in the future have given new force to the call to examine the ways in which planning can help educational administrators carry out the task of developing educational services as efficiently as possible. It is necessary to examine not only how planning can help administrators, but how educational administration itself must change in order to cope with problems and tasks of a size and character with which earlier administrative structures, attitudes and procedures were not designed to cope. This was the aim of the Seminar on the Administrative Aspects of Educational Planning which met in Paris from 23 June to 4 July 1969. This group of people represented teachers and research workers drawn from government departments, Unesco Regional Training Centres and universities. The participants came from countries with a wide variety of situations as far as the part of planning in national administration was concerned. The aim of this report is not to outline a consensus, since no formal consensus was reached, but to give the impression of one participant in a very rich and interesting meeting.

The deliberations of the seminar resulted in generalizations, and it is always difficult to avoid the traps into which general statements made at conferences invite one to fall. What is true of one country may be manifestly false of another, and every report on this subject inevitably includes a plea for more country case studies in order to find out how administration

can best employ planning. It is perhaps necessary to mention that this conference did not pretend to make an analysis of the needs of countries for education and of how administration could best organize education to meet those needs. The undertaking of such an analysis in each country is implicit in the subject of the seminar; its main aim was to examine how arrangements for the development of education, from policy-making to the implementation of policies, could be made more effective.

In making this examination, it seemed to be common ground that both education and its administration are ill-suited to cope with today's problems. The task, therefore, is twofold: first, to make education more internally effective, that is to obtain 'better' returns in the form of educated people from the resources put into it; second, to adapt education to the needs of society. To achieve these aims, the people who guide education must undertake new tasks and accept new responsibilities. Planning is at the heart of the problem of meeting the new responsibilities of education. But the reform of administration to make planning meaningful in terms of what is done is equally important. Discussion of these propositions put the different problems involved in establishing improved administration into perspective: decision-making in relation to planning, converting decisions into action, and the use of new methods and the training of people to do so. The following represents the main impressions of the debate.

The difficulty of adequate decision-making

Planning was seen to provide a firm element in enabling decision-makers to make changes, many of which cover a time span extending over a number of years. At present, when all aspects of life are evolving quickly, it is necessary that the educational policy-maker should have access to the best possible appreciation of the situation based on the facts, and that uncertainty regarding the future should be reduced by informed and relatively reliable projections. These are the pre-conditions for reaching a judgment of an optimizing nature, as between the advantages of different alternatives, and of thus establishing a firm claim in the competition for scarce resources. The crucial question was whether, in fact, judgments were reached on the basis of diagnosis and projections established by the planning services, or whether they were made by rule of thumb, by an intuitive feeling on the part of policy-makers that, on the basis of past experience, a certain course of action would seem right and acceptable. Clearly this 'intuitive' approach to decision-making can never be dispensed with. The advantages of well prepared diagnosis and proposals for the future, as a supplement to it, would however seem evident.

It was stated that planning was most useful when firmly linked with action. In this sense its usefulness may be assessed in relation both to the formulation of major targets for educational development and also to its contribution to the determination and regulation of the norms

which govern educational provision, and to the improvement of the functional performance of the resources involved in educational provision. It is relatively easy, technically, to produce a plan. It is more difficult to give detailed effect to it, administratively and technically. Here it was seen that decisions must be based on previous assessment of the feasibility of carrying them out. There must also be means by which control can be exercised, in terms of time, space, resources and people in implementing decisions. Consequently the integration of planning into administration requires that there should be a team of administrators managing the system who are linked, as the players in an orchestra are linked, with all those who play a part in its development. As a participant remarked, 'The orchestra must be good or the music won't be'.

The levels of decision

This concept of an orchestra, to be meaningful, implies that the government and its subordinate bodies are committed to be guided by and to implement planning, and that the appropriate institutions and personnel have been created or made available to undertake it usefully. 1/ The approach to this concept was eclectic. There was no implicit model of the ideal relationship between the central government and the regional and local bodies. Some countries, for historical and political reasons, had centralized systems with control of education from the centre, others had de-centralized systems with a large measure of regional and local autonomy. The problem was for each country to examine how educational planning can be organized, and assist administration 'get the necessary things done', given the traditional ways (which were not immutable) in which education is organized and controlled.

As far as centrally controlled systems are concerned, it seemed to be that the central government should exercise a decisive role in determining the future development of education and that the ministry of education should have prime responsibility in drawing up and implementing the educational plan. Three prerequisites were thought essential. First, a board or national council of education which would exercise the main advisory role to the minister on the goals of education itself. Second, a planning commission which would have the responsibility in consultation with educational and other planning personnel for drawing up proposals for the development of education over the long term and also in the plan period. Third, a team of administrators who would manage the operation of the system in relation to the objectives which had been decided. In drawing up plan proposals co-operation between these three groups would be close.

Examples provided by the participants showed considerable variety as far as precise arrangements were concerned. The essential point was that ministers and national representative bodies should have available for political decision a firm guide for education in terms of the

1/ See A. W. P. Guruge, 'Functional analysis of educational planning'.

aims of education itself and the needs of the economy and society. This guidance would be shaped by estimates of the needs of the economy for trained personnel, demographic trends, the form and content of education and on the other hand by financial, human and other resource availabilities.

Examples provided from the experience of France and Romania showed how educational planning (which in both cases was imperative) was undertaken, as part of economic and social planning respectively of an indicative and an imperative character. The first draft exploration of the future was undertaken by the planning commission in close consultation with the central planning agency. It was then submitted to the various representative bodies and discussed widely, with those who want something from education and those who want education to do something for society, before being revised. After further consultation with the central planning agency it was submitted by the agency to the government who finally presented it to parliament which adopted it after discussion. The plan thereafter served as a guide to action for the financial and administrative services in education. In both these cases, it may be noted that educational provision is centrally controlled and operated through officials at the regional and local levels who participate in the drawing-up of the plan by providing the basis of knowledge and consensus which are essential for its feasibility. Once the plan has been politically determined, the ministry of education in liaison with the office of the plan and the ministry of finance possesses the technical means at the central, regional and local levels for implementing it. 1/

In developing countries which, before independence, had been associated with the British system it was pointed out that an important role of central government still obtained, although the instruments through which it was exercised had to operate in a structure of well developed regional, local and institutional independence. Financial contributions by the central government and central advice concerning educational structure, standards, teacher supply, school design, etc., represented the main form of guidance. The example of England and Wales itself showed that the authorities were to an increasing extent, at the central and regional levels, using the advice of planning officers in assessing the basis for the total grant to education, its distribution, and the efficient development of educational services.

The cases of India and Brazil highlighted some of the difficulties of planning in large federal countries where central decisions based upon planning advice had only a limited effect on what was done in the individual states, districts and localities. In India the economic projections on which the plans were based had proved over-optimistic, whereas educational provision by the states had greatly exceeded, at all levels, the targets included in the educational plans. Partly, though not mainly, this was due to the difficulty of influencing the

1/ See Raymond Poignant, 'Functional analysis and administrative organization: the case of France'.

development of private education. There were also problems of language or of regional aspirations. There had been a deterioration in the efficiency of education in the sense that the number of pupils had grown more rapidly than the volume of real resources necessary to deal adequately with them. It was necessary, if planning was to be useful, that improved methods of co-ordination and information should be worked out between the federal, state and district levels.

In Brazil there was discussion as to whether it would be useful to unify the administration of education in the country so that it might be planned, controlled and developed under central finance and guidance. Only one state, Sao Paulo, was in a position to plan its education under existing circumstances. In the remaining states resources were scarce, there was multiplicity of controlling agencies and the efficiency of educational services tended to be rather low. The federal responsibility for education might include not only the planning of capital development in consultation with the states but resources for current expenditure also 1/; this was clearly a highly controversial issue and no clear conclusion emerged.

While the role of central government was thought to be important, there was strong emphasis also on the need for a polycentric approach in plan preparation and execution. In countries where planning had made little progress it was found that the regional, local and institutional links with the centre were not strong enough to allow the preparation and execution of the plan. It was desirable that, at each of these levels, administrators should have the time and the capability to undertake planning tasks. The government's commitment to planning should include specific provision for the necessary institutional arrangements whereby, without undue proliferation of personnel, administrators in the planning services, line and service directorates at central and regional levels, could work effectively in planning. Plans are goals, and become reality only when the budgetary and other resources are deployed in the respective component programmes and projects. There was a critical level of feasibility, determined by pre-planning and negotiation at the central and subordinate levels, below which the plan itself was not feasible. Plans should be realisable admistratively.

Participation in planning

Participation was essential in drawing up the plan and, in the widest sense, in aiding its implementation. Considerable stress was laid on the importance of personal communication: the minister should talk to his professional advisers and to his colleagues, there should be full discussions of the work of the mixed commissions at national level, with the planning unit

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1/ See also Claude Tibi, 'The administrative relationship between economic planning and educational planning'.

playing a secretarial role. The proposals of the planning commission should be discussed regionally and locally and should reflect the needs and possibilities for educational development of those levels. Mass media and research and experiment should both make their contribution to the plan.

In participation, prior to the approval of the plan the voice of all those concerned with education should be taken account of through competent delegates. The people on the streets should be consulted about proposed changes in education through their political delegates, and the students and teachers through their professional delegates. The credit of planning in the mind of the people would be a function of the thoroughness of this process and of the extent to which approved objectives benefited from their active support.

But the existence of reactionary pressure groups might mean that mass participation, in the anarchist sense, resulted only in mass reaction - that political opposition might mobilize opinion in favour of tradition and immobility rather than change. Though this danger existed, the balance of evidence suggested that the views of the man in the street tended to favour progress rather than retard it. Examples were given of mass consultation in connection with educational reform; in the Soviet Union two million questionnaires were completed and there was wide discussion through the press, radio and in meetings on the recent reform of secondary education. Educational services would, like other public services, have to be provided by the power apparatus. But it was desirable that this power should be exercised in a manner which permitted lively opposition to and discussion of the objectives of plans.

Planning was, in itself, an objective process. The centre must decide, or in decentralized systems suggest, what can be done in the light of the limit of possibilities. But its decisions must be based on a sincere relationship between politics and planning (at present, it was argued, there was a divorce in many countries) and between political and professional representatives and the public. This relationship involved careful attention to local and regional suggestions.

Participation should also be related to action, whereas it was frequently only identified with consultation. At the village level discussion might show that the villagers attached first priority to the provision of electricity rather than a new school, and therefore the new school would not necessarily represent the first priority for action. In planning change teachers should be encouraged to experiment in new methods and approaches as part of the elaboration of educational reform, since they would be responsible for implementation. Students at different levels could contribute from their out-of-school backgrounds, and teaching methods should take these possibilities into account. The contribution of regional and local administrators, heads of institutions and inspectors was vital for ensuring

effective action in implementing programmes and projects, and this must be secured. Plan-making and implementation, and the diversity of decisions involved, was partly a problem of initiating the appropriate group dynamics.

The qualitative improvement of educational provision

The underlying premise which dominated the discussion was that it was not enough to attempt to make the existing system work a little better. It was necessary to seek to reflect the needs of society, in an era of unprecedented change in the educational system. It was important to examine and make changes in formal arrangements and structures, but the real issue was what was happening in dynamic activity inside the structures. This involves a new type of process for getting things done; political consciousness, informed energies, new approaches to social factors. Planning helped to get this job done.

It was suggested that two sets of distinctions concerning education and administration, respectively, might be useful in approaching the problem of qualitative improvement of education. 1/

A static approach to education was confined to making useful changes in education through improving and enriching inputs while maintaining the traditional means of education: for example, reducing numbers per class or improving the qualifications of the teaching force. A dynamic approach started from the assumption that the existing status quo was unsatisfactory, fitted neither to the new cultural requirements nor to the lives of the children. The same distinction was made in respect of efficiency and change. Efficiency involved taking a specific learning objective and achieving it at least cost in terms of economic and pedagogical resources. Change included rethinking what is taught to make it more relevant to the needs of the economy, society and the student.

Administration could also be static or dynamic. The static concept involved keeping the existing system operating in the same way. Administration was frequently wedded to a static model. Administrators were taught the 'tricks of the trade' and did not acquire an analytical basis with which to examine the system's performance and validity. Many administrators lost their personal identity and did not develop an independent critical thinking capacity. They should be trained to judge the system and prepare new designs for the sub-systems which composed it. This required the best brains and the realized possibility within administration for independent critical thought. Planning was a matter not merely of making the existing system larger and entrenching its archaic aspects, but of altering it and adding new dimensions. The problem was to start with what we have and progressively introduce change in the old model. This required a breed of administrators trained for change.

1/ See Philip H. Coombs, 'The world educational crisis: a systems analysis', New York, London, Toronto, Oxford University Press, 1968.

It was agreed that reform of what is taught and how it is taught is a long and difficult task. Changes could not be effected too rapidly or too frequently. Socratic pedagogy was still basically unchanged, although the increase in numbers rendered it less effective. In many countries which had experienced fundamental political changes the main elements of curriculum, methods and structure had survived. It was suggested, for example, that in one country successful qualitative change could only be achieved when 'every school had been burnt down and every teacher over thirty was dead in a ditch'. Without necessarily endorsing such extremes, the participants noted the difficulty of organizing and achieving basic progress in changing education. Radical changes were more easily effected in a country like the United States, with prevailing anti-traditionalist attitudes, massive resources, decentralization of educational control and an important private system, than in countries with centralized state-operated systems. This was an argument for widespread independence, experiment and decentralization, and posed the problem of how a centralized system could build in the necessary flexibility to achieve desirable change.

It was suggested that in all systems the centre had a guiding or a useful advisory role to play. It was desirable that the goals and methods of education itself should be reviewed centrally by some type of board of education or national commission for education, and that change should be planned in the light of information, research and experiment and consultation at the regional and local levels. In many developing countries reform had involved merely putting the same educational content into new structural boxes. It was necessary to take stock of the needs, and of the results of research and experiment, in order to guide change effectively.

The review of the fitness of education required that the board of education should be receptive to suggestions from those connected with science and technology, employers, parents and students. It should also be in close contact with university research. It should encourage discussion, study and experiments by heads of institutions, teachers and inspectors. The educational budget should include adequate provision for research. There was no contradiction between quantitative and qualitative planning (i. e. the planning of change) since they were inextricably linked; but the latter tended to be neglected. The planning of change required research, consultation and careful preparation if its results were to be accepted and implemented.

Participants felt that the acceptance of the 'change' dimension in planning and administering education was a corollary to, and not a replacement of, an intense effort to improve the internal efficiency of educational operation. In most developing countries quality had been sacrificed to quantity and administrators were most anxious to improve the qualifications of teachers and the conditions under which education was provided. This involved the establishment of minimum standards for efficiencies. Cost-effectiveness studies were still at their inception and there were certain conceptual and technical difficulties involved. These studies should be pursued, standardized and widely employed, Large benefits could be expected also to follow from improved 'profiting'

of the education of specialists in relation to employment; that is, ensuring that education fitted the needs of employers more closely. This would involve new measures during study, improved guidance, and attention to part-time education after study. The balance between full-time education, work experience and out-of-school study was felt to be an important area in which large gains in the efficiency of education should be sought also. The efficiency of educational administration was a prerequisite to improving the efficiency of education, and new management techniques, which had proved their worth in industry and other public services, could have fruitful applications to education.

New administrative and budgetary techniques

The difficulty of educational planning resides in its relatively long-term nature and the fact that it depends, both in plan formulation and plan execution, on programme and project implementation. Drawing up a plan involves reviewing existing programmes and preparing a costed 'package' of revised and new programmes to be executed over a period, which is often five years. It is not easy to obtain information to do this. It is even less easy to obtain decisions from policy-makers concerning the dropping or curtailing of programmes which, judged by results (a difficult operation in education), require such action. Moreover, once a plan has been accepted at the political level there remains the problem of ensuring that annual budgets will 'respect' the plan, and that other ministries and subordinate bodies in the regions will play their part in executing it. The complexity of planning, administration and budget procedures, and the fact that they must mesh effectively together, lie behind the growing interest which those responsible for educational administration are showing in new administrative and budgetary techniques.

It was suggested by participants that new administrative techniques involve the modernizing of the system of educational administration. They embody the essentials of educational planning in that they bring together the use of information in order to prepare choices and the means of measurement and control, whereby the component programmes and projects involved in educational development may be carried out. They facilitate informed choices, but do not and cannot replace policy judgments regarding educational objectives themselves (should the emphasis of educational objectives be on educating the gifted or the less gifted?) or regarding the different choices which must be made in programming and project-making. The quality of the men who make decisions was therefore decisive, and new 'gimmicks' could not replace the need for empirical and pragmatic study of what has succeeded in improving decision-making by administrators and efficient implementation of their decisions.

The new techniques, as Mr. Ta Ngoc Châu observed, represent the results of applying the spirit of planning to the military and business sectors. Their application to the public sector has become relevant in most countries for three reasons. First is the continuous and rapid expansion of government activities and the importance of the programmes being undertaken; this

has led naturally to greater awareness of the need to make choices concerning resource allocation as wisely as possible. Secondly, these methods of programme planning and control represent the contribution of mathematicians, statisticians and economists to problems of decision and evaluation of decisions which were previously the exclusive domain of the traditional administrator. This means that the administrator now can have at his disposal a new type of scientific analysis of concrete problems by which, when he makes his decisions, he can see operationally what his objectives should be, the alternative ways of achieving them and the resource implications of doing so. Third is the fact that the development of computers, which process and provide information rapidly, has increased the speed with which programme choices may be guided by sufficient and relevant information and progress of implementation of programmes may be controlled.

The role of the budget, and improving that role, was clearly central to educational planning and administration. The budget was a reflection of whether the plan was meaningful and articulated in terms of positive programmes and projects to which resources could be committed, or whether it represented a global financial target which was hard to achieve in terms of precise annual allocations. 1/ Clearly there was advantage if, as in the case of France, the budget branch of the finance ministry was closely associated from the outset in the preparation of the educational plan. Thus, while the budget should be 'the faithful servant of the plan', this was only possible if there was firm government commitment in terms of over-all spending priorities to its objectives, and if the articulation of those objectives was sufficiently precise, in terms of the scheduling of the investment and recurrent costs of the component programmes and projects, for their execution to be feasible.

The participants deliberated on the advantages offered by PPBS (Planning, Programming, Budgeting Systems). Basically this means the presentation of the budget in terms of programmes with defined objectives extending over a number of years and with the relevant segment of their total cost. The drawing-up of these programmes as part of PPBS is normally accompanied by the use of cost-effectiveness analysis in order that informed choices may be made as between alternative courses of action. These procedures thus imply a review of total programmes which goes beyond the annual budget period and a close connection between objectives and budgetary implementation. Political choices nevertheless still have to be made and are hard to make.

These techniques were attractive in that they incorporated into the system of budgetary allocation, the strategic objectives to be achieved, the programming of inputs required for their achievement based on selection criteria of return, and the annual budgetary allocations involved. But while it was agreed that PPBS represented a greater degree of rationalization of decisions and their implementation, it was suggested that its application to education posed many problems.

1/ See J. Hallak, 'The role of budgets in educational planning'.

Report of the seminar

Nine-tenths of the education budget was committed as a result of past decisions, and the application of PPBS would require the restructuring of the total educational effort in budget terms. There were numerous centres of decision, central, regional, local and institutional, which would have to be incorporated. A high degree of co-operation would be required as between administrators, planning and budget personnel. Applications of PPBS on a wide scale had been undertaken in the United States, where objectives had been of first national priority, finance was not usually a major problem (except in education) and highly qualified personnel were available, but this federal effort when applied to education had covered only about 3 per cent of total educational expenditures in that country.

PPBS was thought useful since it stimulated the thought of decision-makers through analysis of problems involved in selecting as between alternative courses of action. Many governments were examining the question of introducing it since, with its multi-year horizon, it might enable them to test the administrative and financial repercussions of action over time. It was also pointed out that the basic procedures, in simpler form, were involved in national educational plans and budget negotiations in developing countries. PPBS represented the spirit of planning; the question was whether the many substantive decisions involved in it, including those relating to the definition of the aims of educational programmes, could be made.

This question underlay the discussion of other new administrative techniques with important operational implications. 1/ In principle, the timing, sequence of operations, and responsibilities for carrying out a programme or a project were matters of the greatest interest in education. It was frequently the case that, in making provision for the implementation of key programmes, for example for the expansion of primary education, some problems resulting from the interaction of the programme on the system (teacher supply, buildings, books) tended to be inadequately resolved or provision for resolving them insufficiently determined in advance. Consequently techniques such as PERT (Programme Evaluation and Review Technique), involving the establishment of a critical path of determined and related actions to achieve a defined objective in the most economic way, could be rewarding. This is also, in a more general way, the concern of operations research, the aim of which is the systematic search for the 'optimum' solution. Simulation and model-building techniques, through the exploration of all the consequences of various courses of action, may also prove useful in the decision-making process.

These techniques were expensive, difficult to introduce and required major changes in the control system. They were not a substitute for policy choice. They were an adjunct to planning and implementation. They merited growing attention. The successful application of

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1/ See Ta Ngoc Châu, 'New management techniques and educational planning'.

the new techniques would involve a revolution in administrative attitudes, procedures and structures, and methods of communication. Since a revolution is not normally feasible, attitudes and people being given, a humble and pragmatic approach was desirable. It was necessary to build up from what existed. In some countries it would amount to a revolution even if letters were promptly attended to and competently filed, and if adequate communications could be established between the centre, regions and localities. The use of new techniques required prior improvements in attitudes and arrangements for planning. This was the responsibility of the administrative leadership.

In this connection the participants noted the role of job identification and organization and methods techniques (O and M) in educational administration. 1/ These were to be recommended as an aid in improving the efficiency of educational administration. Their main benefit was in the form of work simplification and in the resultant increase in efficiency. Their operation might involve some initial conflict as between the centres and individual institutions and localities, but there was a balance of advantage in the centralized control of a number of operations and in centralized study of work simplification. Of course, this should be conducted with the co-operation of institutions and localities.

Training and research

The crucial question involved in discussion of the new management techniques was to find out what really went on when planning was incorporated into administration. In some countries the result had been temporary defeat, while in others planning had worked. What caused defeat in the first situation and success in the second? This was a matter of politics, people and technical efficiency. How could those who have to plan, decide about and administer education be better trained so that they could reshape and use the structures needed for planning which works? How can research provide the knowledge of what is needed to improve the administration of education and how can these findings be tried out developmentally?

The Seminar established two working groups, on 'teaching the administrative aspects of educational planning' and 'research needs of the administrative aspects of educational planning' respectively. Their reports are in Appendixes A and B to this document.

The Seminar reviewed the training of educational administrators in Unesco Regional Centres and certain university institutions. 2/ It agreed that reinforcement of the duties of the personnel divisions in the educational system was essential in order that the right

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1/ See R. W. Silversides, 'Job identification and O and M techniques in educational administration'.

2/ See the papers by M. A. Abdel Dayem (Beirut) and John Hartley (Reading University).

people should be made available to perform defined tasks. Administrators should be selected, their work should be evaluated and they should receive in-service training in a way more closely and directly related to their tasks than hitherto. There should be greater continuity of service in a planning capacity, and training should be part of career development. A structure of training for all the different types of personnel who must undertake planning or know about planning should be set up in each country, although the precise nature of the structure would vary according to the size of the country and the nature of the control of education.

Directors of personnel and high-level officials of the ministries of education should meet and discuss these questions in order that selection and training of the 'new-minded' people should be established on an adequate basis.

Governments should specifically devote a proportion of their educational budgets to research and development. While it was, in general, desirable that more attention should be devoted to pedagogical research in order to find out how people learn, it was particularly relevant to know how educational administrators and planning personnel learn to do their jobs. Study should be undertaken of the detailed 'know-how' of planning and administration, so that the practitioners could be provided with usable guides with which to perform their tasks better.

The Seminar heard a number of participants speak on the relationship between policy decisions and research results. Frequently, it was stated, policy-makers could not wait for the results of study. Policy-makers should influence the broad lines which research affecting education and its administration should follow. The ministry should guide and encourage research by universities and other bodies, and within the educational system, so that it made a useful contribution to policy. Policy decision without preliminary study and consultation was the negation of planning.

Conclusion

Inescapably, therefore, we were driven to the conclusion that, in order to improve the efficiency of educational administration in the coming decade, planning must be more closely and usefully employed in administration.

This implied that the arrangements for the formulation of proposals for decision-makers on education should be considerably improved in many countries so as to ensure rational and optimizing judgment on the development of education. While quantitative planning requires reinforcement, a major new effort is imperative to improve the efficiency and the fitness of educational services; these twin objectives of planning cannot be seen in isolation, since each involves the other. To achieve this, political leadership must ensure that improvement in existing arrangements, and new methods of work and co-operation, are created, adequate for the task of bringing full-time and out-of-school education into line with the needs of the economy and of society.

Administrative aspects of educational planning

Planning is useful in so far as the plan proposals, based on adequate information, are feasible and are subsequently translated into reality through administrative action. To achieve useful planning means that, at the central, regional, local and institutional levels, team-work and wide consultation takes place whereby plan proposals, and the work of planning personnel, can embody this basis of reality and feasibility. The precise methods of communication, decision and control will vary according to the nature of the educational system and the type of economic and social planning undertaken.

In this connection, the use of new budgetary and administrative techniques represents the spirit of planning; their progressive adaptation to national circumstances and introduction provides the technical means for modernizing administration. But in developing countries a number of more elementary but fundamental steps need to be taken before the new techniques can be adapted. These concern improved flows of statistical data, better communications, operations research and more effective procedures for the control of personnel.

The quality of the personnel who plan and administer education remains decisive. Close attention should be given to the selection, promotion and training of personnel, so that those capable of planning (and understanding and favouring it) accede to the key positions. Research and development represent the other vital element for improving the effectiveness of planning in educational development. Adequate financial provision, participation of the university, the ministry of education, and the educational system, are important for greater understanding of how planning may help administration do a better job for all those who seek to study.

Part I Study of the theoretical aspects of the relationship between planning and administration

THE ADMINISTRATIVE RELATIONSHIP BETWEEN ECONOMIC PLANNING AND EDUCATIONAL PLANNING

by Claude Tibi

Introduction

The great economic crisis of 1929 and its aftermath, followed by the problems of economic reconstruction and reorientation which a great many countries had to face on the morrow of the Second World War, have led to the general recognition of the need for consistent, steady and continuous economic growth. In the Socialist countries, moreover, the State has centralized all economic responsibilities in its own hands, in order to achieve, in addition to rapid growth, the reforms of structure and redistribution required by Marxist principles. Finally, the accession to political independence of a large number of formerly colonized countries has led them to seek ways and means of economic development.

Another fundamental factor in the development of the planning mentality, and one which is found in most countries, is the extremely important part played by the State in the economy. The State is in practice responsible for nearly all the infrastructures, and a great part of the investments, education and scientific research; its running expenses represent a by no means negligible proportion of the gross national product. The State has thus become the main economic transactor and has therefore been led to play a decisive part in the orientation of the economy and ultimately of society. It is in this context that the concept of planning has very rapidly loomed so large.

Notwithstanding the diversity of initial conditions and of means, a great part of the aims are common to all countries. The real object is to achieve the highest growth (linked with variable social and political imperatives), depending on the disposable resources (physical and human), and in the light of constraints of all kinds (technical, economic, administrative, political and social). It is therefore essential to organize and co-ordinate, and all the more so, the more complex and the more developed the economy (Massé's phrase could be cited, treating the plan as 'a means of reducing uncertainty', a 'generalized market substitute').

But the means adopted, and therefore the forms of planning, in the last analysis, differ very widely.

At one extreme, there are certain countries (United States of America, Federal Republic of Germany), which remain attached to freedom of enterprise and the limitation of State intervention in economic life. They nevertheless make over-all forecasts (economic projections) which do not have the backing of the authorities and do not constitute plans. The fact remains that there is ultimately an increasingly close co-ordination between the decisions of the State and of private business.

At the other extreme, in the Socialist countries, planning is imperative and the State, as being responsible for economic development, controls the execution of the plan. Within this category distinctions can be drawn according to the extent to which the plan is centralized.

Between these two methods it is possible to define (a) indicative planning, in which the State indicates what should be done to achieve the targets set, but exerts relatively little influence on economic transactors. It is hoped that in this way the plan will be carried out spontaneously (cf. French planning). The snag is the existence of enterprises with relatively autonomous powers of decision on whom the plan is not legally binding. The value of a plan of this kind is none the less obvious; it has an educative value (national development targets, 'concerted economy') and an operational value (a) gigantic market survey which orients business policy and determines State action ; and (b) incentive planning; the State does not itself arrange for the achievement of targets, but gives advantages, such as tax benefits, to units which carry out the plan, and penalizes those which do not achieve the targets (cf. Yugoslav planning).

In reality, all existing planning partakes of all these different types, French planning, for example, is indicative only in those sectors in which the State lacks basic data (agriculture) or means of action. In certain cases, it becomes incentive planning, through the use of tax benefits, while in the administrative sphere it is, in principle, imperative.

In any event, and in the developed countries, the plan, while allowing the achievement of priority targets, is increasingly aimed at ensuring the balanced growth of a more and more complicated whole.

In the developing countries, moreover, the need has been rapidly recognized to master and promote economic and social development. But in this case planning has a quite different significance. It mainly constitutes (or should constitute) a war on want and therefore a total mobilization of resources and energies. The real problems here are, structurally, the economic disarticulations and the dominations which shatter the unity and weaken the drive of the country, as well as the sociological forces which, in many fields, are opposed to progress. It is therefore necessary to determine the actions and structural reforms to be undertaken to make the economy sounder and less dependent, and to devise precise and realistic projects along the desired lines.

In most cases, in any event, there can be no question of arriving in this way at economic equilibrium, but only at the least damaging disequilibrium. This leads us to stress the fact that the formulation of a development plan must not be confused with planning proper, that is to say execution and the mastery of the economic and social future. The real problem in practice too often lies at the

level of action, and the preparation of a document, often very precise, cannot, in some instances, make up for the shortcomings of the political and administrative authorities in surmounting the constraints which stand in the way of achieving the targets set.

It is important to stress from the outset the differences in character, and even in kind, between planning in the developed countries and in the developing countries, since the functions assumed and the constraints encountered will unquestionably take somewhat different forms.

We propose to analyse here the integration of the planning agency in the administrative set-up, and the functions it must assume, going on to consider the administrative links between economic planning and educational planning. Part II is devoted to considering the problems and constraints which hamper the effective preparation and execution of the plan.

PART I

Chapter I. Central planning agencies, their functions, their relations with political authorities and the administrative environment

In analysing the administrative setting of planning, it is important to study the following points:

- the agency responsible for the plan, its powers, its relations with the political authorities, the administration as a whole and economic and social groups;
- the administrative procedures for the preparation and approval of the plan;
- the agency responsible for execution and the procedures for evaluating results.

There is a very wide choice of alternatives in organizing the framework of these functions; the success or failure of the plan largely depends on the choice made. Furthermore, the planning function forms part of the whole duties of organization and management normally discharged by the administration. It is therefore important to study the interactions which may result from it in various respects:

- the compatibility of the projects of the various Ministries with the targets of the plan;
- the allocation of resources between the present and the future (consumption-investment);
- the distribution of responsibilities between the central and the regional level, and the participation of the regions in the formulation and execution of the plan;
- relations between plan and administration at the stage of supervision of execution.

In so far as the plan involves the participation of economic transactors, it is also important to study the relations between the planning agency and economic and social groups.

In theory, the political authorities should determine the major options, while the administration should prepare the decisions and present the government with a range of choice. The government is in principle responsible for the execution (partial) and supervision of the plan.

In practice these frontiers are very often challenged. In some cases the administration may ensure the execution of a plan in spite of political changes; in other cases, on the contrary, it will resist the execution of the plan; it may find itself disarmed in the face of private interests hostile to the plan, or it may even be dominated by such interests.

We thus find a whole range of interrelations, the analysis of which, for each country, is highly significant, and determines the precise powers of the planning agency and the real effect of the plan.

Finally, planning may be regarded as a decision-making process; the role of the administration is to prepare and partially execute the plan in the political, economic and social context.

The preparation of decisions requires the establishment of communications for the exchange of written and oral information between administrative departments and with the political authorities. If it is to be profitable, this exchange must be two-way and complete so that all the agencies involved in the planning process take an effective part. At this stage, human and personal factors play a capital role.

The approval of the plan constitutes a legal act of a special and novel character. In the first place it is a final decision which is merely the culmination of a series of choices and judgements at all levels. Secondly, the plan is merely the starting-point for a whole series of subsequent decisions; but while it is imperative for all the actions to be taken by the administration, it is in general merely indicative or incentive for the private sector. This is what distinguishes it from an ordinary law.

But the main problem lies in the transition from decision to action, complicated by the fact that it is a long-term process which therefore demands a certain continuity, but also flexibility in so far as adjustments may prove necessary.

Execution is not a matter for the administration alone; it calls for the participation of the whole population, and there is therefore a capital role of leadership and mobilization which must be played by the administration.

This relatively new task may be assigned to specialized services (agricultural advisory services, rural leadership, etc.) or to local institutions of a political or occupational character. If it is to succeed, however, it demands the total support of those responsible; on its success, moreover, largely depends the success of the plan.

Finally, it should be pointed out that, at the stage of preparation and execution, the administration must act as an intermediary between the political authorities and the economic and social environment. It must be capable of organizing dialogue, of ensuring the balance between ends and means, between the desirable and the possible.

This calls in particular for human resources (in qualified officials, for example) and thus means, in the first place, the integration of economic and social aims in the plan, and secondly, the adaptation of the aims to the administrative capacity for preparation and execution.

We now turn to the analysis of the central planning agency, the body to which it is responsible, its functions and the administrative procedures connected with preparation and execution.

The central planning agency

The appearance in the administration of this new function constituted by planning calls for the creation of a new agency, which often provokes a hostile reaction on the part of the administration. In spite of this, it is essential to ensure close co-operation and it is therefore important to study the placing of the planning agency.

There are three possibilities:

- an inter-ministerial agency;
- an agency attached to the Ministry for Economic Affairs and Finance;
- a planning ministry with no predominance over other ministries.

The advantages and disadvantages of these three possibilities are discussed below, but it should be clear that none of them is inherently preferable to the others. The choice must depend on political, economic, technical and social factors, but most particularly on the nature of the plan (limited or over-all, indicative or imperative) and on the qualified personnel available.

In general, the placing of the planning agency should:

- ensure it sufficient authority;
- allow it fairly wide autonomy;
- integrate it in the administrative set-up so that it can influence it and at the same time benefit from its co-operation.

1. The creation of an inter-ministerial agency is very common; this character is derived from its attachment either direct to the head of the executive (Portugal, Presidency of the Council) or, indirectly, through a minister-delegate of the Prime Minister (France) or a minister with certain predominance over the others (USSR, the President of Gosplan is Vice-Prime Minister, Poland, etc).

This type of attachment should ensure the driving force and arbitration which the plan requires in relation to other ministers. It nevertheless assumes that the head of the executive is personally interested in planning and desires its execution. The same applies to the minister for the plan, and these factors are at least equally important with legislative factors.

2. Attachment to the Minister for Economic Affairs and Finance is also fairly frequent; it enables responsibility for the whole of short, medium- and long-term economic policy to be concentrated in his hands. In principle this should allow a better link between conception and execution, but very often the short-term problems (because of their urgency) overshadow the long-term imperatives and there is then a danger of sacrificing the main objectives of the plan. Furthermore, there may be difficulties of integration resulting from divergences of outlook and attitude; the Finance Ministry is mainly interested in the budget, while the plan is concerned with the whole of the economy and with the private sector. Treasury officials are readier to restrain expenditure than to take measures to encourage development.

In any event, it is essential for the Finance Ministry to take part in all the bodies which prepare the plan, and for the closest links to be established.

3. The creation of an autonomous ministry responsible for the plan with the same powers and authority as other ministries, is an unrealistic solution. The possibilities of control and supervision are then almost non-existent; furthermore, an organization of this kind often means short-circuiting the plan, ministers going direct to the Ministry of Finance for funds, thus ruling out all possibility of co-ordination.

The relations of the planning agency with the political, administrative, economic and social environment. The planning agency and the political authorities

In theory, the political authorities must determine the major options (first, because it is their role, and secondly, because the plan must reflect the aspirations of the nation), while the planning agency is responsible for the technical part of the work and the administration responsible for execution, directly or indirectly. In practice there may be hostility or inertia on one side or the other.

The implications of the plan and of a development policy take various forms:

- from the political angle, the plan means setting priorities among economic and social aims;
- administratively, these choices must be translated into the techniques applied;
- this also means that administrative activity must be oriented in the light of the long-term aims;
- finally, at economic and social level, transactors must adapt their decisions in the light of the general orientation, and the public must understand the significance of the plan and participate in it.

Relations with the executive may be organized in different ways:

- the creation of a council to supervise the work of the plan, including government representatives, but in this case care must be taken to distinguish political and economic criteria, and clearly to separate responsibilities;
- the creation of an inter-ministerial committee to supervise and co-ordinate at top level.

It must be noted that, in any event, the role of technicians in preparing the plan is very great and it is impossible to be certain that their views, criteria and methods will always fit in with the desires of the political authorities.

That is why it is necessary to provide for permanent government control over the successive stages of the technical preparation of the plan, as well as for Parliamentary control. It is important that the technicians of the plan should not have the power of decision, but should merely make suggestions.

Finally, with regard to the chances of realizing the plan (and this applies principally to the developing countries), it must be settled who gives approval and the corresponding procedures must be analysed, since the situations may differ widely according to countries and political systems.

According as to whether the plan requires the approval of Parliament, or merely of the Council of Ministers (which sometimes comes down to that of the Head of State), the authorities may feel themselves more or less committed to its implementation. The form of approval (statute or simple directive) also has a certain importance.

The planning agency and the administration (general aspects of relationships)

We shall briefly consider here a single aspect of this question; how can the planning agency be integrated in the administration as a whole and organize its links with the central and regional levels?

The participation of the traditional administration in the new functions entailed by planning means:

- a permanent link, which allows the exchange of information, associates the administration with the preparation of the plan, and keeps it informed of its execution;
- that this link must be sufficiently close, but flexible, so that commissions are not multiplied to the point of preventing all possibility of work.

Most frequently, the planning agency creates specialized commissions (the members of which, moreover, are not necessarily drawn from its own personnel), in which the responsible officials of the different ministries take part.

Relations with the regional level may be organized through local correspondents for the plan, enabling the regions to participate in defining their specific targets.

The functions of the plan

These will be discussed at the stages of (1) preparation, (2) execution and control.

1. Preparation

Whatever the form of planning, there are certain tasks which must be performed; the collection of the necessary information, definition of possible lines of development, setting detailed targets, and approving the plan.

a. Compiling statistics

No sound economic analysis can be made without a minimum of statistical information. But it is important to determine the quantity and quality of statistics needed and to arrange their presentation in the light of the needs of the plan. The question may then arise of relations between the planning agency and the statistics services.

The volume of data needed, their scope and diversity, depend on the form and type of planning (indicative or imperative, global or sectoral, national or regional). Their compilation should make it possible to draw up economic accounts, to estimate sectoral and regional characteristics, and to evaluate the econometric relations which appear in aggregate economic models.

In many developing countries such data are non-existent or insufficient. This does not mean that planning must be held up until the necessary information is compiled; most frequently, much of the action to be taken is evident and, in the first stage, one can be satisfied with a partial plan limited to sectoral programmes.

Data may be compiled from other authorities (statistics then constitute a by-product of administrative activity, such as taxation, finance, foreign trade etc.), but in this event the planning agency must have adequate powers to call for certain information.

They can also be obtained by direct compilation (surveys, censuses, etc.) through the statistics service; this means that the needs must be defined and ranked in order of priority under the control of the planning agency (which sometimes creates conflicts of competence) and that adequate resources (personnel, credits) must be available.

Finally, the available data are often partial, irrelevant or presented in such a way that comparisons are impossible (problems of nomenclature, for example) and considerable work must then be done to standardize and co-ordinate them.

b. Exploring possible lines of development

The priorities set by the political authorities are often somewhat varied and relate to the development of production (certain sectors may be given preferential treatment, according to the line chosen), foreign trade, the importance to be attached to the private sector, reducing inequalities of income, redistribution, the replacement of foreign cadres by nationals and so forth.

The planning agency must then bring to light the implications of these options. In the developed countries the most common technique is to sketch a broad picture of the economy at a given term, arguing from a few sectors, and thus strike a first balance, then introducing certain variants (growth rate, improved productivity, hours of work, manpower) so as to give the political authorities a range of choice. A more detailed outline is then made on the basis of the results of the first approach. The general balance is established by successive approximations, modifying the targets each time that inconsistencies appear. This is done first on the physical plane and then on the financial plane. The different variants are then submitted to the government, which makes the choice and gives directives which enable the commissions to work out detailed targets by sector.

For the developed countries, therefore, the starting point is a general equilibrium based on the fundamental interdependences which characterize advanced economies. Such procedures are neither realistic nor feasible in developing countries.

In this case, in practice, it is important to start from a balance sheet covering the economic and social structures, the resources (human, financial, administrative), the fundamental needs to be met and the constraints, sociological or others. The long-term (15-20 years) prospects are then determined in the light of the major options and defining the structural reforms to be introduced, after which the action is broken down into periods of 3 to 7 years, each of which will be covered by a plan.

c. Setting detailed targets

Detailed targets must be prepared in two phases:

- a phase of discussion which should allow all parties concerned (administrations, representatives of economic and social groups, technicians, etc.) to participate in the common task by expressing their preferences and their views;
- a phase of arbitration and decision which will ensure that the targets thus set in the different sectors are compatible with each other and with the resources available.

In general, specialized vertical commissions are established for the major sectors of activity. Horizontal commissions are sometimes added to study the fundamental equilibria (employment, finance, etc.) and the consistency of sectoral targets and their compatibility with the available resources (by the establishment of physical and financial equilibria; the supply and use of goods and services, exports-imports, saving, investment, etc.). In the developing countries it is wiser to restrain the multiplication of these commissions, owing to the lack of qualified personnel and to avoid the dispersal of effort.

d. Approving the plan

The plan is generally submitted by the government for the approval of Parliament. Where there is no Parliament, it is the government or the head of the executive himself who approves it officially.

The scope of the plan is generally very wide and it cannot give details of all the specific actions to be undertaken; it cannot therefore be compared to an ordinary law. In fact the government commits itself to conforming its action to the targets of the plan but the operative force of the plan is rarely clearly defined.

It may be added that, in many developing countries, uncertainty about foreign aid and foreign trade makes the approval of the plan purely formal.

Finally, the private sector is not generally bound by this decision.

The commitment therefore mainly affects the government, which must allocate public investments and orient economic, financial and social policy in conformity with the plan.

2. Execution and supervision

The conditions of execution depend on political, administrative and technical factors.

Sometimes the plan is launched purely in order to benefit from foreign aid. The priorities set by the plan may, moreover, be called into question by shifts in policy. Short-term problems (budget, external finance) may momentarily take precedence over the long-term imperatives. Finally, economic or social pressure groups may resist the execution of the plan.

The administration, for its part, intervenes mainly at two levels:

- financing the projects included in the plan;
- taking administrative action to allow their execution.

Questions of finance arise in the following ways:

- Which is the ministry responsible for financing the plan and what are its relations with the planning agency?
- What are its relations with the rest of the administration?
- What are the administrative procedures for the inclusion in an annual budget of programmes extending over several years?

Capital equipment budgets are usually prepared alongside the current working budget; in some cases they include the assignment of certain resources (foreign aid, import taxes, revenue of certain monopolies) to finance capital investments. A capital equipment budget is also more suitable for carrying out programmes extending over several years.

The importance which the government attaches to the plan can be measured, up to a certain point, by comparing the sources of finance recorded and the corresponding revenue with the mass of State-financed capital investments.

Furthermore, all capital expenditure has an influence on current expenditure and it is important to analyse methods of establishing the current working budget in its relations with the capital equipment plan.

The implementation of the plan also calls for the adaptation of administrative procedures. Thus it is important to define the ministries responsible for executing each programme and to set up effective co-ordination between them and the planning agency. This can be done either by making use of existing structures or by creating new structures, but the main problem is to establish the closest possible links between the plan and the ministries responsible for execution.

With regard to execution proper, it is important to arrange for the allocation of responsibilities between the plan and the executive ministries, and the co-ordination of the action of ministries involved in the same programme. This should be done both at central and at regional level.

Many activities or programmes included in the plan call for action by different ministries. This therefore implies inter-ministerial co-ordination and the possibility of intervention by the planning agency to ensure the unity of the plan.

Action at regional level can be grouped in two categories:

- investments in the modern sector of the economy, raising problems mainly of a technical character;
- programmes for the conversion of the traditional sector, which are much more complicated to apply.

The execution of the plan therefore calls for the satisfaction of a number of conditions:

- the directives from the centre must be communicated to the regional level and means of execution must be available;

- the executive agencies should be in a position to implement the programmes, adapting them if necessary to local conditions;
- the action of the technicians and local administrative staff should be co-ordinated with that of the local authorities.

The plan and social and economic research

The progressive and regular pursuit in depth of planning work calls for the continuous development of research into the techniques used, econometric models and the estimation of their parameters, the behaviour of economic transactors, resistance to change, etc.

The central planning agency must then take steps to ensure that this research function is carried out; in some cases it will take part in the creation of specialized bodies (the Gosplan Research Institute in USSR, CORDES in France, etc.); in other cases research may be contracted out to public or private institutions.

The preparation and execution of the plan therefore necessitate a profound modification of administrative procedures and their internal links. But that is not enough, since it is also essential to have qualified personnel available at all levels; this observation leads us on to the second part, dealing with educational planning and its administrative relationship with economic planning.

Chapter II. Educational planning and its administrative relationships with economic planning

The aims of educational planning have both economic aspects (training needs and costs, cost-benefit analysis, opportunity cost) and social aspects (literacy, school enrolment, etc.). One of the major problems nevertheless continuesto be whether the available resources should be used as effectively as possible or applied to reducing the most blatant inequalities.

The term adopted for educational planning is generally much longer (15 to 20 years) than for economic planning. The efforts to be made are so great and the cost so high that they must be spread over a sufficiently long period. Furthermore, the training of senior cadres generally takes 15 to 20 years and it is much more lengthy and more difficult to change men than to change things. Training can therefore be adapted to the needs of the economy only over a long period.

This leads us to the integration of educational planning in economic planning, arising out of the fact that the economic and social aspects of development cannot be separated. Resources, human and financial, must be drawn from the national stock and assigned to education, that is to say, to human investment. In so far as education programmes are established in the long term it is important that their execution should be broken down into periods, each of which corresponds to the period of an economic plan, and that the necessary cost should be expressed in the same way as the cost of economic projects.

This most frequently calls for arbitration procedures, which should be undertaken first at administrative level and then at political level so that there is a genuine integration of plans and co-ordination of aims. In any event, medium-term education programmes cannot be formulated without some indication, if only global, of the appropriations assigned to that sector.

Most frequently the assignment of resources to education is not based on theoretical criteria but on international comparisons. The basis thus is the implied assumption that development must take place on the same model in all countries and that the advanced countries afford a sound model.

We have considered above the financial aspect of the integration of economic planning in overall planning. But there is a second aspect relating to the training of qualified personnel which often constitutes a limiting factor on development. Once the needs are forecast (allowing for all the economic programmes included in the plan), they can be compared with the possibilities of the system and efforts can then be made to adapt the system accordingly. Educational planning thus emerges as one of the essential constituents of overall planning.

These two types of integration should ensure the compatibility of aims and thus improve the chances of achieving them.

The administrative framework for educational planning

The distribution of responsibilities between the central planning agency and the Ministry of Education is an important question. The type of organization chosen should allow:

- the setting of the targets for the education plan in line with the economic targets;
- the effective participation of the responsible chiefs of all interested services of the Ministry of Education in the preparation of the education plan;
- the allocation of resources between the education sector and other sectors on the basis of priorities defined by the political authorities.

The soundest way of achieving these aims seems to be to entrust the education plan to a specific commission created for the purpose within the central planning agency, in which the various specialists of the Ministry of Education would participate. This is indeed the only way of ensuring the genuine integration of educational planning in economic and social planning and the allocation of resources on clear political and economic criteria.

The role of the Ministry of Education at the level of the plan should be to provide all the data and information for the establishment of the plan, to define all the qualitative aspects of education (especially teaching) and to draw the inferences (e.g. in the matter of standards) and finally to ensure the execution of the plan through its regional offices.

In some countries the Ministry of Education itself is responsible for establishing the education plan. This solution is not likely to be very satisfactory, since integration in the overall plan will not generally be achieved under good conditions. There are a whole series of factors which will have to be taken into account:

- the concordance of targets;
- the possibility of allotting resources to the education sector (equipment and running);
- the standardization of the presentation of forecasts and projects with that used in the plan;
- procedure for arbitration with other sectors at administrative and political level.

PART II

Chapter I. The administrative problems and constraints

Administrative structures and the attitude of officials towards the plan operate in practice as constraints and generally lessen the effectiveness both of the preparation and of the execution of the plan. It is therefore important to analyse these two points and study the special factors which make the situation even worse in the developing countries.

The inflexibilities of the administration and its compartmentation are major obstacles which must be overcome if the plan is to be prepared and subsequently executed under sound conditions. A number of studies have been devoted to the working of the various administrative systems. It is enough to cite as an example some of the conclusions of an article by Monsieur Crozier on the French administration (cf. 'Crise et renouveau dans l'administration française' - Sociologie du travail - No. 3-66); the oustanding features which emerge relate, of course, to a particular country and are open to debate, but a certain number of lessons can be drawn from them. The author thus assets that the French system can be characterized by the following features: (i) very marked centralization (which tends to erect a screen between those who make the decisions and those who are effected by them). The consequence at the centre is faulty information and lack of contact leading to insufficiently well informed decisions; (ii) stratification along functional, and above all hierarchical lines and poor communications between different categories, resulting in a rigid and hidebound system. These two factors, which result in the administration's poor capacity to communicate or participate, lead to an inefficient use of human and material resources and slow and painful adjustment to change.

Capacity to communicate is essential to the smooth working of any system of modern organization. It is essential in practice for the responsible chiefs to be rapidly and precisely informed of all the data which govern their decisions and to transmit to their subordinates the objectives, means and conditions for implementing these decisions. Stratification and centralization are, in general, inimical to the proper diffusion of relevant information.

Capacity to participate is also under-developed. Every modern organization depends more an and more on the good will of its members, their adaptability and innovating capacity and spirit of co-operation. The more complex an organization, the less it can operate merely by rote and the more it must rely on the co-operation of its personnel. But the administrative style does not facilitate participation, in so far as it is founded on rigid hierarchical principles, one of the consequences of which is to weaken the link between a career and the successful discharge of functions or duties.

A study of the future evolution of the administration and its adaptation to new tasks shows that a number of problems must be settled.

1. The hierarchical relations between the centre and the outstations. The separation between the organ of conception and the organ of execution resulting from centralisation and stratification, militates against efforts at renewal. These centres are generally incapable of modifying the relations

which have been established between the outlying services and the environment. The change of ob-
jectives and the introduction of rational economic calculation therefore demand a remodelling of t
system of internal relations.

2. The problem of difficulties of communication between administrative fiefs which are op-
posed to any attempt to modify the internal system. The compartmentation of administrative pyra
(resulting in particular from fear of possible competition) impedes the development of a great ma
new functions which cannot be integrated in the traditional pyramids. In practice, progress often
manifests itself at the frontiers of different disciplines and ways of thought and thus clashes with
the compartmentation and imperviousness of the language and mental processes of the different a
ministrative groupings. The Plan should play a very important role in this respect by introducing
common language and a synoptic approach. But in spite of a certain accession of officials to these
new methods on the intellectual plane, the possible progress is in danger of being limited by the
traditional tensions and compartmentation which are the expression of conflicts of competence an
the determination of each fief to protect its own future.

The administration in the face of the plan

It is interesting to analyse the attitude of the administration towards the working methods of the p
and the growing place it tends to take. In this connecion, while recognising its limited and specifi
character, we may cite a survey made by sociologists in a Directorate of a French Ministry (cf.
'Conflits internes et unité d'action' - Sociologie du travail No. 3-66). One of the sets of questions
put to officials related to their reactions to the Commission for the Plan.

It should be made clear at the outset that the chiefs of the Directorate had made serious
efforts to introduce a new spirit and to favour relations with the Plan.

General reaction

Of the officials questions: 53 per cent regarded the Plan as little more than an accounting docu-
ment, 20 per cent reserved judgment, and 27 per cent assigned it a role of prospection and prep
tion for the future. It should, however, be made clear that, for many of these officials, their du
did not require them to work on the preparation of the Plan and it may be thought that this is a pr
of informa[illegible] rather than a genuine attitude. The survey should really be extended to all the offi
working on the Plan.

Method of participating in the Planning Commissions

A number of officials of the Directorate take part in the Commissions of the Plan. But the assign
ment of duties within the Directorate does not coincide with the assignment of studies under the P
Officials thus fail to find the distribution of functions to which they are accustomed and are tempt
to participate only so far as they can derive something from it. It is, however, doubtful whether
their attitude is based solely on questions of the organization chart.

For the Commissions which cover sectors corresponding to the responsibilities of the services of the Directorate in question, the judgments are as follows:

unreservedly in favour of the Plan		29 per cent
consider the Plan dangerous		18 per cent
" " " "	scientifically inadequate	7 per cent
" " " "	valueless	7 per cent
openly unfavourable		17 per cent
regret that the Plan does not concern their activities		17 per cent
no opinion		5 per cent

Participation in the work of the Plan in this field is judged as follows:

- the Plan wastes our time	2 per cent
- we have always participated loyally	16 per cent
- the Plan is our doing	12 per cent
- we do not participate enough	15 per cent
- we are making progress towards better participation	28 per cent
- no opinion	27 per cent

A cross-check between the two sets of judgments shows that the unfavourable judgments are passed by those who claim that the Plan, in this sphere, is the work of their Directorate, which indicates the small extent to which their authors are involved.

On the other hand, the judgment 'scientifically inadequate' is passed by those who desire to participate more fully, which indicates their high degree of involvement. It thus clearly appears that the Directorate is handicapped in developing fruitful contacts with the Plan by the absence of agreement and scientific comprehension.

Assessment of the contribution of the Plan

The answers to a question on the assessment of the functions of the Plan can be grouped in three sets:

I
- The Plan makes it possible to renovate the activities of the Directorate and conceive a new policy.
- It facilitates co-ordination within the administration.
- It raises new problems.

II
- The Plan enables us to meet management and labour.
- It improves information.
- It is a weapon against the tyranny of finance.
- It teaches us.

III - The Plan dispossesses us.

- It creates disorder.
- Other adverse judgments

A cross-check with the judgments passed above shows that the Group I answers come almost exclusively from officials who are deeply involved and keen on innovation. Group II answers come indiscriminately from officials who are very attached to co-operation and those who are not. Finally, in Group III, the fear of dispossession is manifested by 20 per cent of officials most of whom are deeply involved; it does not therefore represent basic hostility on their part, but precisely the recognition of the positive and innovating character of work on the Plan.

In conclusion, and as a partial explanation of the insufficient contact between the Directorate and the Plan, the authors of the survey assert that '... The gulf is the absence of a common language. So long as the Directorate cannot formulate, if not its concerns, at least their economic consequences, in calculable terms, the solicitude of the planners will be no great help'.

It must, however, be emphasized that the example studied is somewhat special and by no means representative of the attitude of the whole of the French administration. But it has the value of bringing out some of the attitudes and reactions which can be encountered in every administration and which represent an obstacle to the more effective implementation of planning.

The aggravation of the difficulties in the developing countries

Most of the difficulties to which we have referred are to be found again in the administrations of the developing countries, but with additional factors which make the situation worse.

The obstacles most frequently encountered can be classified in four main categories: problems of organisation, of personnel, political problems, social and cultural problems.

1. Problems of organisation

In general, co-ordination is bad, and at two levels:

- Co-ordination in setting the targets for the different Ministerial departments during the preparation of the Plan.
- Co-ordination in the execution phase between the Ministries concerned (Plan, finances, responsible ministry).

In the first case, it is mainly a question of relationships and the effective distribution of powers between the Plan and the other ministries. If a planning department is found to be isolated from the rest of the administration, the result will most frequently be a non-functional plan; the actions and measures to be taken to implement it will not be provided for, owing to the poor links with the ministries concerned and the limitation of their participation to the setting of targets and the preparation of projects.

Whatever the place of the planning agency, the real problem is the mobilization of political power in the nation. That is why, most of the time, the plan will merely have an advisory influence but no real force.

Another major problem is the excessive centralisation to be found in the administrations in most developing countries. It is reflected in:

- the very great difficulty of the centre in delegating powers to different levels;
- difficulty in deconcentrating at regional and local level.

Both in the preparation and the execution of the Plan very severe constraints are then encountered.

This situation arises either from the technical inadequacy of the cadres (often recruited immediately after independence) at high levels in the hierarchy at the centre, or from their fear of the often better trained young people coming into the administration, or, finally, from the weaknes of the local levels. In practice, able young cadres are usually extremely reluctant to work at the regional level.

The structures for approval and decision-making then become very clumsy bottlenecks appear at the centre, the chiefs waste their time on minor issues and responsibility very soon becomes diluted. In the last analysis the system shows itself unable to make proper use of the qualifications of officials.

Finally, budget procedures most frequently operate as constraints. The attitude of the Treasury officials, whose duty is to control expenditure and adjust it to income, tends to slow dow the process of execution of the Plan, while the rules for approval do not allow a sound functional check on the funds assigned to a project or the quality of the project itself.

2. Personnel problems

The shortage of qualified personnel (and the faulty use of existing personnel), obviously constitutes the major problem at every step in the pyramid, but above all for intermediate and junior executiv

It is frequently found that training is not adjusted to the duties to be discharged. The curricula of schools and faculties are generally copied from those of developed countries, without regard to the essential adaptation and re-formulation. Cadres are not trained for the jobs they wi have to do.

Another manifestation of the insufficiency of qualified personnel is the very rapid turnove of senior officials. This leads at individual level to insufficient knowledge of the field of responsib and lack of accumulated experience, and in the aggregate, to a loss of productivity, which is some times considerable (in addition to the 'running-in' period for the chief in his new sphere, there is also the period of marking time and adjustment which always follows the arrival of a new chief).

With regard to the accumulation of experience, substantial losses are also found when foreign technical assistances are called in without local officials being assigned to work with them (this is very frequent - e.g. the Plan in Morocco).

In some cases, moreover, it has been thought that the standards of the personnel employed were too low to enable them to collect taxes properly, with a consequent loss of revenue to the State.

Finally, the lack of qualified cadres is reflected in statistical information (data fragmentary, unreliable or unsuited to the needs), thus raising serious problems both in the preparation and the execution of the Plan.

3. Political problems

The main difficulty here is the interference of politics with administration. Personnel are too often recruited on political considerations rather than because of real abilities. The criteria for the inclusion of projects in the plan are often far from being purely economic and social.

Relations between Ministers are greatly affected by their origins and political backing. As individuals, few of them would be prepared to take responsibility for the great risks involved in a genuine development policy. Planning then becomes much more apparent than real.

Political instability, and the consequent changes of minister, is another aspect of the same problem. It tends to enhance the attitude of 'wait and see' and to introduce frequent changes of orientation which are prejudicial to consistent development.

In general, the administration itself tends to become politically committed and to turn into a de facto power. Very often it constitutes in practice the only organised body capable of formulating political and social aims, and may therefore become conscious of its power when the executive is weak or divided.

4. Social and cultural problems

The maladjustment of the administration to development tasks also results, to a very considerable extent, from its fundamental conservatism and preference for stability and continuity.

In practice, the administrative structures are usually inherited from the colonising power whose interest was to maintain the status quo and whose main tasks were to preserve order and collect the taxes.

Another extremely important constraint is constituted by feudal structures and clans. The individual does not reason in the light of the general interest but in that of the interest of his clan, the group to which he is attached, and to which he often owes everything. Individual motivations are thus in danger of becoming inconsistent with national aims.

Conclusion

To sum up, it is quite apparent that the administrative requirements for planning are still far from being satisfied in most countries and that action is needed along these lines. Instead of refining the economic techniques used in planning, it would be much more effective at the present stage to improve administrative liaison and co-ordination by keeping the personnel informed, making them participate at all levels and improving communications. This naturally requires, on the part of this personnel, an awareness of the problems which arise and a desire to participate, but there can only be awareness so far as the responsible leaders themselves spread a certain number of ideas and create conditions which allow each official to be one element in the whole. It should be added that, in a great many cases, the first bottleneck is the training of qualified administrative staff in sufficient numbers.

The problem of administrative deconcentration is also of the utmost importance; far too many plans are still prepared by a central echelon with little contact with the local administrations. The result is documents which take insufficient account of the true local facts, and are therefore unrealistic; it is not astonishing that major difficulties then appear at the level of execution, but it is also obvious that serious progress can be made only at the cost of a certain number of conditions:

- reinforcement of local personnel
- delegation of powers from the centre
- improved liaison

It must, moreover, be recognised that the same problems arise in educational planning and in its integration in overall planning. In practice, the development of human resources is one of the conditions for economic development, but one of the major problems is to establish a sound link between the targets of educational planning and those of economic planning. This can be done, in particular, by establishing the needs for qualified manpower and by estimating the way in which these needs can be met in the light of the available resources of the education sector. This work calls for the contribution of services attached to different ministerial departments, and therefore their co-operation in achieving a given target defined by common consent.

FUNCTIONAL ANALYSIS OF EDUCATIONAL PLANNING - THE INTERNAL DIVISION OF FUNCTIONS AND ADMINISTRATIVE ORGANIZATION WITHIN THE MINISTRY OF EDUCATION

by A.W.P. Gurugé

1. Introduction

1.1 Y. Dror's definition of 'planning' as:

> 'the process of preparing -
> a set of decisions -
> for action in the future -
> directed at achieving goals -
> by optimal means'

embodies a functional analysis of the process of planning, plan formulation and implementation. It is important, at the very outset, to differentiate between economic planning and educational planning. Though they are linked in the ultimate objective of national development, each has its own particular sets of targets and specific strategies. To the educational planner, the process of economic planning would appear less complicated, for, despite its inherent problems of both ideology and technology, its goal in the form of increased growth in national income is more easily demonstrated through a system of national accounts and its major methods of accomplishment, such as investments, savings, controls, taxation, subsidies, licensing have long been accepted as standard administrative tools. Besides, much thought has been given to this aspect of planning and a consensus of opinion has been reached in many areas. In comparison, educational planning is still a new field and its objectives, approaches and strategies are still being discussed inconclusively. But Dror's definition is as valid in principle for educational planning as it is for economic planning.

1.2 The purpose of this paper is:

(a) to examine the manner in which educational administrators of the Ministry of Education approach the key functions of deciding on goals, means and actions in the process of preparing and putting into effect a plan for educational development;
(b) to evaluate the effectiveness of the administrative organization for planning and plan implementation;
(c) to assess the adequacy, relevance and efficacy of administrative measures and procedures resorted to by the Ministry;

(d) to suggest improvements in educational administration to meet the demands of planned development; and
(e) to explore ways and means of extending the planning process beyond the narrow limits of the bureaucratic machinery by ensuring the participation of all interested parties (i.e. parents, teachers, pupils and, in short, the entire society).

Within the limited space of this paper, however, only the salient issues pertaining to these problems can be raised and those, too, quite briefly.

2. Power to plan

2.1 Contrary to the wishful thinking of most administrators and planning technicians, the power to plan is a basic political power vested in the supreme governing authority of the country and is exercised always, by the chief executive (i.e. President or Prime Minister) through the legislative and executive machinery. Even where a separate Ministry of Planning is in existence the final decisions are taken at the highest level, for decisions on priorities and alternatives can best be taken by an authority who has an over-all control over everyone concerned. Where the planning machinery is in the form of a Commission, its Chairman is often the chief executive, or else, its chairman works in close liaison with and under the direct supervision of the chief executive.

2.2 The authority to plan education is not always vested in the Ministry of Education. In most countries, major decisions on education are taken by the chief executive himself or by the cabinet as a whole in view of their 'inflammatory' nature and, consequently, the Minister of Education is either a junior politician given an opportunity to gain experience for more important functions in the future or an old party hand rewarded with a seat in the Cabinet for his past services. Where the Minister's political standing and enthusiasm are at a low ebb, the strength of the Ministry diminishes proportionately. The power to plan becomes a hotly contested issue and the Ministry of Education is often reduced to an advisory role in a planning function, actually operated by the Central Planning Organization.

2.3 The role of the Central Planning Organization (a) as the final co-ordinating agency among different ministries, competing for the scarce resources in men, money and material, and (b) as the appropriate authority to find ways and means to secure and increase such resources, cannot be disputed. But its involvement in the detailed planning of specific activities such as agriculture, health, land development, education or transportation is neither practical nor conducive to efficiency. The dictum that a plan foisted on administrators by an alien or outside agency generates no enthusiasm and is most likely to be shelved unimplemented applies with equal force to one prepared by the Central Planning Organization. This remains the strongest argument in favour of empowering the Minister of Education to plan education and giving the Ministry the administrative organization required to assist him effectively in that task.

3. Objectives

3.1 The definition of goals is fundamental to planning. In education, a set of perennial and universally applicable objectives have been in existence; namely:

(a) the physical, mental and emotional adjustment of the individual to the social unit in which he is brought up;
(b) the economic viability of the individual and the social unit; and
(c) the preservation of the cultural identity of the social unit.

These encompass all possible objectives in education.

3.2 When a political party in its election manifesto, or a government in its programme, announces its educational objectives, all it does is to decide on:

(a) the order of priority it assigns to personal adjustments, economic viability and cultural identity;
(b) the means by which the chosen goal or goals are achieved; and
(c) the rate at which the modern sector in education is extended to take over the functions of the traditional system (see Annex I).

Thus one finds these objectives states in such terms as:

integrating education with national development;
correlating education to national economic, social and cultural needs;
developing a vocational and technical bias in education;
improving the quality of secondary and higher education;
introducing universal primary education;
ensuring equality of educational opportunity.

Couched obviously in the most general terms, they are by themselves in the realm of pious hopes, and many an administrator has been exasperated by their lack of precision as well as their demagogic flavour. The impatience of the professional administrator is understandable, even though it cannot be justified. The politician, both by inclination and by the pressure of his particular working climate, prefers targets which fire popular imagination. Reducing them to workable propositions is a professional function which has to be undertaken by the senior staff of the Ministry, operating close to the vortex of political power.

3.3 The interpretation of political targets in terms of practical educational objectives is, by far, the most important function of the Ministry. In this function, the professional administrators have many advantages over the politician-Minister:

(a) They know the background to every problem and the limitations and constraints which are and have been in the way of their solution.
(b) They are adequately safe-guarded from public criticism and intervention so that they can take a detached view on every issue.
(c) They need not be motivated by either parochial interests or the desire for quick, short-term results, which govern political decisions.

But an impulsive Minister may, at times, choose to disregard professional experience and reduce his senior staff to a position of unquestioning yes-men, or begin operating through a coterie of sycophants, who are not too rare in any establishment. Apart from the fact that

such situations are usually short-lived, the administrator has with him an effective solution. With the complexity of administrative organizations and the multiplicity of laws, regulations, precedents and conventions which govern administrative action, power and authority in any bureaucracy tends to flow into the hands of those with the highest knowledge and the greatest capacity for work. The indispensability of the administrator, achieved through knowledge and efficiency, has always been the stabilizing factor, and this type of stability is essential to the Ministry of Education before it begins to define objectives and undertake planning.

4. Central planning organization

4.1 The Ministry of Education can, quite effectively, prepare an educational plan in the absence of any national or central planning and depend for finances on its special powers of persuasion and intimidation and the annual budget. Of course, in such instances the Ministry of Finance or the Treasury performs, though not formally, the function of a Central Planning Organization in estimating and allocating resources to various governmental activities.

4.2 But the existence of a Central Planning Organization is a tremendous advantage. First and foremost, its creation is an eloquent commitment of a country to planned development. Second, the allocation of resources is more logical and consistent when done through a central plan than when it is done on an ad hoc basis. Third, it helps to co-ordinate activities of cognate or similar objectives undertaken by different agencies and cuts down overlapping and duplication. Lastly it provides an opportunity to take an over-all view of different developmental activities as they affect the nation as a whole.

4.3 But the Central Planning Organization should have its functions clearly defined. If it undertakes functions which are legitimately of other Ministries or which can be done better by the technical and professional personnel in those Ministries, not only can its usefulness be reduced but it can also prove to be a hindrance to progress. As far as educational planning is concerned, the Central Planning Organization would have served its purpose fully, if it:

(a) prepares a macro-economic plan, which will indicate:

(i) the allocation of resources (i.e. annual provisions, foreign exchange quotas, foreign aid etc.) available to education during the plan period,
(ii) investment objectives,
(iii) recurrent implications,
(iv) the development in other fields which have a direct bearing on education (i.e. expansion of agriculture and industries indicating patterns of employment opportunities, the opening and the development of new areas and the likely impact on population movement),
(v) the claims that will be made by different sectors on the public and private organizations for the construction of buildings, roads, playgrounds etc., and their capacity to meet them,

(vi) the claims that will be made by different sectors on industries making furniture, fittings and apparatus and their capacity to meet them,
(vii) the type of import-export restrictions anticipated and their likely effect on the importation of educational materials,

(b) sees to the preparation by a competent body of specialists a comprehensive report on the national manpower requirements, containing:

(i) long-term as well as medium and short-term forecasts of national and, if possible, regional manpower requirements,
(ii) a survey of employment opportunities with indications as to the nature of skills and specializations demanded,
(iii) an examination of the imbalances between the current 'mix' of the educational output and the needs of the labour market,
(iv) broad guide-lines for job analysis, with tentative indications on the minimum educational qualifications anticipated for various types of employment,

(c) urges the government to take policy decisions relating to:

(i) the employment of expatriate personnel,
(ii) the trend of replacing expatriate personnel with nationals,
(iii) emigration of trained personnel (i.e. brain-drain),

(d) makes itself available to educational planners for consultation and ensures the co-ordination of the educational plan with those of other sectors.

5. Planning for planning

5.1 The Ministry of Education has necessarily to begin by planning the very process of planning. Three matters demand its immediate attention:

(a) the organization available or desirable to handle the planning operation,
(b) the administrative limitations to planning and plan-implementation,
(c) the gathering and processing of basic data required for planning.

Simple and obvious as they may appear to be, most of the problems of educational planning arise right at the commencement due to inadequate attention paid to these details. Whether a government is seriously interested in and committed to educational planning can be easily judged from:

(a) the extent to which the Minister and his senior staff are involved in the planning process,
(b) the emphasis laid on staffing the planning organization with the most competent and energetic officers,
(c) the degree to which the planning personnel is given administrative authority and responsibility,
(d) the attention given to, and facilities provided for, the specialized services of the Ministry, responsible for educational research, statistics and data processing.

A simple test can be designed to determine this, e.g.:

(i) Does the Minister fulfil conscientiously his legitimate role as the chief educational planner?
(ii) Does the senior staff of the Ministry share the responsibility for the plan as well as the planning and plan-implementation processes?
(iii) Is the head of the planning organization near enough in status to the Minister and his senior staff so that he has direct access to them?
(iv) Is the planning organization one of the last units from which staff is 'pinched' to meet shortages elsewhere or to handle emergency duties?

Not many countries are in a position to answer these questions in the affirmative.

5.2 The Ministry often experiences three major problems:

(a) the total absence or paucity of qualified officers to fill positions of technocrats in the planning organization,
(b) the incompetence or indifference of the existing administrative staff to reorganize itself and the inadaptability of the administrative machinery to meet demands of planning,
(c) the absence, inadequacy or inaccuracy of data available both from outside and within the Ministry.

Among them, (a) is the least difficult to solve, for a judicious use of foreign technical assistance and training programmes will produce the men needed for specialized functions. As regards (b), positive remedial steps to reorganize and modernize administration should be given priority in the preparations for planning. While (c) causes much inconvenience, it is not always a deterrent to planning. A little ingenuity on the part of the planner, coupled with an understanding of the main trends of development in a country and a first-hand knowledge of a few areas, enables him to prepare a tolerably acceptable plan which can be revised and perfected, as research and data-gathering improves. From an administrative point of view this is less problematic than (b), which really is the most serious impediment to planned development.

6. Education Ministry Planning Organization

6.1 As the concept of planning began to influence educational administration a decade or two ago, some sort of planning organization was considered necessary either within the Central Planning Organization or within the Ministry of Education. The Central Planning Organizations, very often, had a Sub-Commission on education, comprising, among others, representatives of the Ministry of Education and serviced by an administrative unit which was, theoretically, expected to maintain liaison with the educational administration. When Planning Units were established in Ministries of Education they tended to be no different from any other administrative unit and were staffed usually by statistical, building construction and accounting personnel. Sometimes, they were located in the Budget Section of the Ministry as the preparation of the annual budget was the main planning exercise of the Ministry.

6.2 The Planning Unit of the Ministry, merely as an administrative branch, could exercise no control or authority over other branches, which, actually, carried out the functions of implementation. An 'over-arching' organization was thus found necessary and out of that need evolved the high-powered commission or Committee, appointed to be in charge of educational planning, headed by the Minister himself or his permanent secretary, serviced by specialists and supported by the specialized services of the Ministry.

6.3 An examination of the relative merits of a Planning Unit and a Commission or Committee as administrative organizations for planning will show the special advantages of the latter more vividly. (See Table I)

6.4 The ideal administrative organization for educational planning within the Ministry of Education is an Educational Planning Commission or Committee:

(a) headed by the Minister or his permanent secretary (i.e. the seniormost civil servant in the Ministry),
(b) comprising senior officers of the Ministry of Education and other Ministries associated with the national educational effort as well as representatives of professional bodies, teachers, parents etc.,
(c) with the Planning Unit of the Ministry as its Secretariat and the head of that unit as the General Secretary,
(d) supported by the documentation, statistical, research, financial and building construction divisions of the Ministry,
(e) maintaining liaison with the rest of the Ministry,
(f) associated closely with the Central Planning Organization and other Ministries,
(g) handling, through the Planning Unit, the preparation of the Annual Budget of the Ministry.

6.5 A question can be raised about its location. Should such a commission necessarily be in the Ministry of Education? Would it not be more efficient if it was within the Central Planning Organization or even between it and the Ministry of Education? While answers to these questions are very heavily dependent on the political ideology and the traditional administrative patterns of each country, an important principle of administrative science favours the direct involvement of the Ministry of Education in educational planning: an administrative organization generates greater momentum when it is vested with policy and decision-making authority.

6.6 There are, of course, other problems created by special constitutional and political factors, such as the division of authority and responsibility between Federal and State Governments or between the Central Government and local authorities. As planning, to be effective, should take place at every level of policy and decision-making, a hierarchy of administrative organizations for planning, with clearly defined limits of authority and responsibility, is absolutely necessary. Such a system of planning organizations should extend right down to the grass-roots level, namely, the school.

Table I. Relative merits of a Planning Unit and a Planning Commission/Committee

	Planning Unit	Planning Commission/Committee
Staff	Manned by officers, relatively junior in the administrative machinery.	The senior staff of the Ministry is drawn into the planning operation.
Scope	Purely internal organization - rarely exercising any authority even over other branches of the Ministry.	Outside talent from other ministries including Finance, Central Planning Organization, universities, agriculture, industry and commerce and and from cultural, religious bodies can be included.
Co-ordination	Restricted in marshalling the support of other units within the Ministry and other departments and ministries.	Capable of co-ordinating specialized services within the Ministry and outside.
Functions	Tends to deal with the quantitative aspects of planning rather than with the over-all implications of pedagogical, social and political factors.	Competent and empowered to take an over-all view of all related problems.
Decision-making	Depends on policy-decisions and directions passed down from above.	Takes an active part in the policy-making and decision-making processes.
Political pressure	Tends to be over-awed by political and administrative pressure or in the alternative becomes inactive and frustrated.	Less liable to be carried away by political expediency.
Public criticism and information	Has little opportunity to meet public and uninformed criticism. Limited in informational functions.	The official and professional status of members gives a measure of authority to the plan. Opportunities to meet criticism greater. The Ministry information services can be better utilized to support the plan.
Implementation	Has little influence in the implementation of the plan.	Represents a combination of the planning and the implementation functions. Wields an administrative authority over officers directly connected with plan-elaboration programming and project preparation.
Flexibility	Rigid in structure and less capable of adopting flexible attitudes to problems of a socio-political nature. Consultation and compromise greatly reduced.	Democratic in structure and procedure. Greater opportunity for consultation, compromise, change and innovaion.

6.7 The creation of planning organizations at each level and each institution is by far the most effective way of allowing for the participation of the society, as a whole, in the planning process. But this is more easily said than done. The further we go from the Central Planning Organization, the greater is the tendency to lose sight of the over-all picture and be caught up in parochial and local considerations which, due to their proximity to us, naturally appear larger and more important. The outcome of the situation is made more complicated by the fact that local and institutional administrators are often less qualified, less experienced and less able and are without any concept of even the rudiments of planned national development. The involvement of local interests in educational planning without disrupting it and creating problems of unrest, agitation and sabotage calls for a four-pronged attack:

(a) Careful definition of functions, authority and responsibility of each planning organization,
(b) Preparation and issue of clear-cut terms of reference and unambiguous guide-lines, especially in relation to national objectives and limitations of resources,
(c) familiarizing all administrators in concepts and techniques of planning,
(d) a programme of public education, using every available mass media.

7. Re-organization and modernization of administration

7.1 Administrative impediments to planned development are not peculiar to education, but no other aspect of national activity is as hampered by administrative complexities as education. The multi-faceted control pattern of educational administration (see Annex I), imposed by tradition, convention and even constitution, is further complicated by problems of centralization, decentralization and recentralization of authority. Decades of in-breeding, as a result of which educational administrators were produced from within the system with little or no specialized training in administration (each successive generation perpetuating its inheritance of conventional practices) have, in most countries, left a legacy of prejudices and stereotyped attitudes and standards. Moreover, the psychological reaction of the existing personnel, who invariably consider changes and innovations as challenges to personal security and well-being, is not conducive to self-renewal or development of efficiency.

7.2 Operational barriers in educational administration arise from several factors:

(a) Personnel, i.e. understaffing; dearth of administrative talent; inadequacy of leadership; want of training and retraining;
(b) Material, i.e. limitations in physical plant; inadequacy of up-to-date machinery and equipment; limitations in mobility and communications;
(c) Methodological, i.e. hang-overs from 'care-taker' or 'laisser faire' administrations; wasteful and time-consuming procedures; need for administrative stream-lining;
(d) Informational, i.e. the absence, inadequacy or inaccuracy of information and data available or retrievable for decision-making purposes;

(e) Legal, i.e. antiquated legislation; multiplicity of rules and regulations; rigidity in the devolution of authority and responsibility;
(f) Political, i.e. inadequacies in political leadership, inexperience and expediency;
(g) Public relations, i.e. absence or inadequacy of direct contact with the public and the resulting alienation of the administration from the sociological forces at work in the nation.

When faced with these problems the usual reaction of the educational administration has been to restrict its field of operation to:

(i) routine maintenance of services;
(ii) rigid personnel administration, particularly through transfers and disciplinary control;
(iii) divorcing administration from the technical aspects of the services administered;
(iv) avoidance of controversial issues.

7.3 The re-organization and modernization of educational administration is a process of eliminating the above operational barriers and creating an atmosphere of change and innovation in which the administrators would undertake and handle challenging tasks. A talent hunt accompanied by a substantial investment in material requirements would, in itself, solve the major portion of its problems. The search for new techniques of administration would be facilitated by borrowing discriminatingly from management principles which have shown spectacular results in streamlining industrial and commercial enterprises. They would show how rules and regulations could be utilized to enhance efficiency and promote individual initiative.

7.4 The more difficult problem is to overcome the political barriers, because a country, as the saying goes, gets the government it deserves and little can be done to vary it. But no government worthy of its name is without the enlightened leadership which is capable of minimising the detrimental effects of parochial, party or local interests and political expediency on administration. The integrity and impartiality of the administration (especially when loyalty to the government is combined with a wider loyalty to the people and a deep sense of patriotism) certainly has a great influence on reducing undue political interference to a minimum. So are such constitutional safeguards as judicial review of administrative actions, writs of certiorari and quo waranto and the institution of ombudsmen.

7.5 Although we consider administrative reorganization and modernization as a step in planning for planning, the complex tasks involved in it cannot all be completed before the Ministry begins to plan education. It would be necessary to include in the plan measures for the improvement of administration and continue to give them as much attention as other aspects of educational development, if not more.

8. Data-gathering and processing

8.1 As a preparation for planning, the Ministry requires as much information and material as it can find in the form of:

(a) data obtained from outside sources, e.g.:

(i) the information regarding the macro-economic plan, the allocation of resources and manpower requirements supplied by the Central Planning Organization (see paragraphs 4.3);

(ii) demographic data from the census authorities;

(iii) information on traditional values, social and cultural prejudices and preferences and political awareness and ideologies, as they affect education, gathered through researches of social and political scientists;

(iv) information relevant to the expansion of education facilities, such as the availability of land for buildings, the capacity of the building trade to handle educational buildings, industrial and trade limitations which pertain to the supply of equipment, etc.;

(b) data prepared and available in the Ministry, e.g. statistics on:

(i) pupils;
(ii) classes;
(iii) schools and other educational institutions;
(iv) teachers;
(v) administrators;
(vi) physical plant and facilities;
(vii) costs;

(c) data to be worked out from (a) and (b) above for specific requirements of planning, e.g.:

(i) enrolment, dropout, repetition, promotion and rates and age-grade analysis of pupils;

(ii) qualifications, distribution, shortages and excesses and training and retaining facilities of teachers;

(iii) distribution, adequacy and actual condition of school plant and facilities;

(iv) interpretation of manpower forecasts in terms of educational qualifications and relating manpower needs to educational output;

(v) unit costs and analyses of educational expenditure.

8.2 The gathering and the processing of the above data do not constitute planning; or even the projection of enrolment and retention figures over a period of years a valid plnning operation. These are only the tools for planning and the time and energy spent on their acquisition is justified only to the degree they are useful in making decisions realisticsly. This fact has to be constantly borne in mind, especially when research units, entrusted with their collection and preparation, often show a predilection for amassing a vast quantity of data of little use to planning, though extremely valuable for history.

9. Planning

9.1 Planning begins when decisions are taken for action and the means of achieving goals are worked out. Decision-making is fundamentally an administrative action, and an administrator by training,as well as due to the pressure under which he works, seeks for the better course of action (i.e. what, under given circumstances, is immediately feasible to take him nearer to the accomplishment of his goal). He is rarely allowed the luxury of waiting for inspiration or until all factors and alternatives are examined, so that he can choose the best course of action. But he cannot work purely on rules of thumb or hunches. Decision-making has in recent years received much attention from specialists in administration and ways and means of equipping the administrator to make better decisions have been worked out. Needless to say, they are not only applicable to educational planning but also essential in view of the complexity of problems, alternative solutions and political, cultural and social constraints and prejudices.

9.2 If the educational administrator proposes to utilize the techniques of decision-making adopted by industry or commercial establishments he should at the very start distinguish between the aims of education and those of industry and commerce. Educational aims are not measurable in such tangible forms as higher profits, lower cost of production, expansion of market, economies of scale, etc. Such approaches as have become popular among educational planners (i.e. cost-benefit or cost-effectiveness approach and manpower requirements approach) smack of the industrial and commercial practice of reducing everything to a balance-sheet and striking a surplus or a deficit balance to measure success or failure. Not only the novelty of these techniques and approaches, but also the important national and personal aspirations, which are generally not taken into consideration by them, make the average administrator in the Ministry of Education suspicious of, if not hostile to, them. That explains why the Ministry of Education in most countries prefer the social demand approach to any other and also why even when imbalances in the educational output, its incongruencies with job opportunities and educated unemployment are observed, the Ministry makes little effort on its own to change or improve the situation. The solution is not one of making economists out of educational administrators or educational administrators out of economists, as is suggested by some investigators.

9.3 What appears to be necessary is an over-all approach to educational planning which will take into consideration all aspects of character-building, citizenship-training, individual aspirations, manpower requirements, costs and national development. Such an approach can more effectively be evolved from within the Ministry of Education than through a Central Planning Organization or any other agency. It is important to note here that no two countries - not even those falling within the same typologies - can have the same approach, as the

relative importance assigned to each aspect is governed by the level of development, the political and cultural maturity of the people, the predominance of tradition and a host of other factors peculiar to each country and, very often, to each region within a country.

9.4 Whatever the approach adopted by each country, planning involves a preliminary assessment of objectives, resources and means in terms of '<u>constants</u>' and '<u>variables</u>'. Though it would appear at the outset that school plant, facilities and teachers are all 'constants', there is, in the field of education, only one main 'constant', namely, financial resources. All other factors, perhaps with exceptions like the optimum capacity of the building trade, are variable, in the sense that adjustments and modifications can be made in them to the extent that funds are available. The principal 'variables', are:

(a) <u>Pupils</u>

(i) number of pupils to be enrolled in different levels of education;
(ii) age of admission;
(iii) the compulsory school-going age;
(iv) distribution of pupils into different types of education and institutions.

(b) <u>Teachers</u>

(i) number of teachers to be employed;
(ii) distribution of teachers into different specialities, levels and types of education by means of recruitment and pre-service training;
(iii) proficiency of teachers for different specialities, levels and types of education by means of retraining;
(iv) conditions of service;
(v) teacher/pupil ratio.

(c) <u>Time</u>

(i) length of courses;
(ii) number of working days;
(iii) number of working hours;
(iv) allocation of periods in the time-table;
(v) length and distribution of vacations.

(d) <u>Content</u>

(i) subjects and subject-groupings;
(ii) curricula;
(iii) syllabuses.

(e) <u>Structure</u>

(i) age-grade structure;
(ii) class organization;
(iii) school/institutional structure;
(iv) out-of-school educational activity.

(f) Methods

(i) instructional methodology;
(ii) course guides;
(iii) textbooks;
(iv) teaching aids;
(v) machines, radio, television and other media.

(g) Evaluation

(i) units and credits;
(ii) scholastic and aptitude tests;
(iii) vocational and educational guidance;
(iv) examination system.

(h) Physical plant and facilities

(i) location of schools and institutions;
(ii) optimum use of plant and facilities;
(iii) school architecture and building materials;
(iv) cost of building and equipping;
(v) improvization of equipment and apparatus.

(i) Additional financial resources

(i) community participation (e.g. self-help);
(ii) productive educational activities (e.g. school farms, bakeries, repair-shops);
(iii) cultural role of the school (i.e. community entertainment);
(iv) industrial problem-solving and research (e.g. universities undertaking research for the industry);
(v) extension services.

Out of all these 'variables' at the disposal of the educational planner, rarely does he use anything other than:

(1) number of pupils to be enrolled, adjusting the number according to the availability of funds;
(2) number of teachers to be employed;
(3) teacher/pupil ratio, increasing it as a means of reducing cost of teachers;
(4) number of working hours and allocation of periods, organizing double sessions to avoid congestion.

These are important for the arithmetic of planning. Apart from the facility with which they can be worked out, they are easily demonstrated to higher levels of policy-making as well as to the public. These factors are especially favoured by the economist in educational planning, for they centre round problems of economics.

9.5 The main justification for entrusting educational planning to the Ministry of Education is that it is functionally better equipped to explore ways and means of modifying all these 'variables' for the achievement of optimum results. That is the fundamental approach to utilizing 'optimal means'. So it is important that this function be assigned the highest priority among the duties of the Ministry. But it is not a function to be entrusted to an

ad hoc agency like the Planning Unit. While the Planning Unit may direct the operations from the centre, the fourfold functions connected with them, namely:

(a) research - particularly action research;
(b) experimentation;
(c) consultation with experts, practising teachers and informed public opinion;
(d) pre-testing in pilot projects.

should be undertaken by each of the branches concerned with these 'variables' with the active co-operation of the educational field staff. The inspiration and inducement for changes and innovations should emanate from the highest authority in the Ministry, while incentives should be provided for every member in the Ministry to put forward suggestions. Regular conferences and discussions, similar to the 'brainstorming sessions' of industry, help to capture sparks of inspiration which can, in due course, be developed into new lines of approach. Similarly, an arrangement to collect and process ideas, which may arise outside the Ministry, should be put into operation. The public must be encouraged to think and comment on how the 'variables' in educational planning can be adjusted and modified to bring about the desired results. As no one holds a monopoly for new and brilliant ideas, no section of the public should be kept out.

9.6 But ideas do not arise in a vacuum. The Ministry has to take the lead. Problems should be identified and 'constants' and constraints lucidly explained. For this purpose, as well as to receive and develop promising ideas, the Ministry should provide for a body of competent persons with open minds, free of prejudices and conservative notions and temperamentally inclined to try out changes and innovations.

9.7 To adapt the administrative machinery of the Ministry to such a concept of planning, a complete re-organization will be necessary. But it is not the type of re-organization which is effected by tinkering with the organizational chart or organigram of the Ministry. It is not a case of fitting individuals into a number of 'slots' but of finding the correct type of person for the kind of challenging functions that planning involves.

9.8 An educational planner, right at the commencement of his work, discovers two disconcerting facts:

(a) 80-90 per cent of the Educational Budget is already committed for recurrent and continuing projects and functions, and only 10-20 per cent of it is available for new projects which go into the plan,
(b) 80-90 per cent of the administrative time is already committed for functions of a maintenance nature, and when it comes to the senior officers, whose involvement is indispensable to planning, the percentage of time taken up by supervisory, ceremonial, political and public relations functions is even greater.

Finding more administrative time for planning is thus another of the very urgent functions of a planner. The solution may appear to lie in increasing the staff of the Ministry; but this in fact is not a solution, for the type of person whose time is required for planning is not relieved by merely increasing the number of his assistants. Far more important is an investigation into problems of (a) devolution and delegation of authority; (b) controlling and approving mechanisms; (c) time-consuming routine procedures and record-keeping and (d) administrative bottlenecks. What is necessary is an Organization and Methods Review for the specific purpose of relieving the higher echelons of routine functions. It may call for drastic steps in the form of amending legislation, revising instructions and breaking down the lines of authority which, especially in ex-colonial countries, had inherited the tendency to centralize power of decision-making close to the metropolitan power. Here again the Ministry can learn a few lessons from the success achieved by industrial and mercantile management: (1) by the delegation of both authority and responsibility to different operational levels; (2) by minimizing record-keeping and (3) by working out time and energy-conserving job breakdowns.

9.9 Once the Ministry, by giving planning as much of the administrative time and talent as possible and carrying out a full range of consultations at all levels has decided upon strategies as regards the modification of 'variables' to suit targets of the plan, the major function of planning is almost fully accomplished. The approval of the strategies and the formulation of guidelines by the Educational Planning Commission or Committee completes this function. The arithmetical formulation of the plan is a routine exercise of giving expression to decisions made on a much wider coverage of data than educational statistics. Such a difficult and complicated process is called for here, as educational planning demands as much a philosophical, psychological and sociological approach as a mathematical one and involves as much immeasurable conceptual values as quantifiable targets.

10. Plan formulation

10.1 The first Draft of the Plan, which the Planning Unit as the Secretariat of the Educational Planning Commission or Committee prepares, will be nothing more than the elaboration and logical arrangement of decisions made by the Commission or the Committee. Its main objectives will be to:

(a) achieve a measure of internal consistency among different programmes and projects;
(b) indicate the adequacy or otherwise of the resources made available to education by the Central Planning Organization;
(c) suggest an order of priority and a pattern of phasing for various activities, particularly those such as building, equipping and teacher-training which precede the inauguration of an educational programme;

(d) establish the feasibility of the Plan as a whole as well as of specific projects included in it.

Being a document primarily meant for the Commission/Committee as a basis for the revision of their targets, strategies and policies in the light of the over-all picture it presents will, naturally, be confidential and limited in circulation.

10.2 It is presumed that the Planning Unit will not only pinpoint the issues to be decided by the Commission/Committee but also suggest alternative approaches in matters which need reconsideration due to problems of feasibility, inadequacy of resources etc. The Second Draft, which will embody the revised strategies and policies, will be the basis for:

(a) professional criticism by statutory, advisory or operational boards within the Ministry of Education;
(b) discussions with agencies controlling various aspects of education (e.g. Regional Departments of Education, Local Government Authorities, Local Education Authorities, School Boards, Religious and Private School Managements etc.);
(c) consultations with representatives of institutional administrators, parents, teachers, educational trade unions and student movements;
(d) negotiations with the Central Planning Organization, the Ministry of Finance, the Treasury and other governmental agencies connected with the Plan (e.g. Public Works Department re buildings, Land Department re expropriation of land), as well as private agencies (e.g. textbook publishers, printers, manufacturers, importers and distributors of teaching aids and science equipment);
(e) assessment of political reaction.

To reach the wide network of organizations and individuals envisaged above, the Second Draft should be a detailed presentation of all relevant data. Meticulous care should be taken in its preparation:

(i) to ensure that it is in plain language with little or no technical jargon and 'mystifying magic';
(ii) to make it both readable and convincing as a document meant to win the support of the people rather than baffle them;
(iii) to emphasize that everything contained in it is for examination and criticism and is bound to be amended in the light of comments made by the people.

Needless to say, the psychological climate created by throwing the document open to public criticism would become fruitful only if an adequately efficient machinery is established at the Ministry to receive and process the comments with the seriousness they deserve. Newspapers, public meetings, seminars, interviews, memoranda are among the main means by which public opinion will be normally expressed. If the machinery handling criticism is reasonably receptive and considerate there will be no need for the public or any section affected by the Plan to resort to any disorderly or violent forms of expressing its disapproval of any proposals.

10.3 Lest any idealistic administrator become disappointed with the public and lose faith in the efficacy of consultation, he should be warned that a fair proportion of the criticism will come from:

(a) uninformed quarters who are carried away more often by slogans than by sense and more inclined to impute dishonourable motives to anything;
(b) parochial vested interests whose self-interest is placed above public or general good;
(c) political 'rabble-rousers' for whom any issue is good enough if it can be twisted and slanted to embarrass the government in power;
(d) self-appointed critics who see something wrong with everything but have no constructive suggestions to offer.

He would soon learn to sift the chaff of such comments and identify those which are valid and useful for the revision of the Plan.

10.4. The assessment of the political reaction to the Plan is a more complex operation. In a Parliamentary system two alternatives are available:

(1) presenting in Parliament the major policies, embodied in the Plan, in the form of a White Paper for a full-scale debate
(2) discussing the Second Draft at a meeting of the Government Parliamentary Group.

The first method has an advantage in that members of the Opposition too are given an opportunity to express their views and, where the leaders adopt a statesmanlike attitude, the discussion can be above the petty and parochial bickerings of party politics. In socialist states the same function is performed by organs such as the central committee of the political party.

10.5 A question often asked by administrators and planners is whether they are obliged in these discussions, consultations and debates to 'defend' the Plan. A clear exposition of why a particular alternative is chosen in preference to others and what prevents the adoption of a proposal which on the face of it appears attractive, is expected of them at every discussion whether in Parliament or outside. Further, there is always the need to clarify certain aspects of the Plan, clear misunderstandings, remove incorrect impressions, rectify errors in data and supply further information. All these functions throw on the Planning Unit a tremendous responsibility for marshalling the resources of the Ministry in 'defence' of the Plan. Such a responsibility demands that a co-equal authority be vested in it.

10.6. The preparation of the Third Draft will need a fresh set of guidelines from the Commission/Committee in the light of the opinions expressed by various persons, organizations and political agencies. To obtain these decisions, the Planning Unit should identify the principal points of controversy, suggest alternative solutions and indicate limitations imposed by resources, feasibility and the need for consistency. The period of preparing the Third Draft

will be marked by feverish activity in the form of informal consultations with the Central Planning Organization, the Ministry of Finance, the Treasury and, above all, the head of the government. In fact, the most important part of the planning operation is carried out through these consultations in which the administrators and planners play the role of 'bargainers'. Once the Third Draft is approved by the Commission/Committee, it has the authority of a technically as well as politically acceptable document for which the prior concurrence of everyone concerned has been informally obtained. Under such circumstances, the final approval of the Plan by Government and its incorporation in the legislative enactments of the country (as done in some places) are purely formal.

10.7 The next function of the Ministry of Education is about the most significant, as the successful implementation of the Plan depends very heavily on it. That is the organization of the public education and information service to ensure public co-operation for the Plan. A well planned use of all forms of mass media is called for here. It is at this stage that local and institutional organizations, discussed above (see paragraph 6.7) have a special function to perform.

11. Plan implementation

11.1 The Plan should have included the administrative implications of implementating it, e.g.:

(a) enactment of new laws;
(b) issue of subsidiary legislation on the authority of existing laws;
(c) re-organization in administration;
(d) changes in procedure.

Where some of the agencies controlling education are private and autonomous, the manner in which their activities are incorporated in plan-implementation (e.g. legislative compulsion, grants, incentives), too, should have received due attention. Where more than one governmental or non-governmental agency plays a special role in the achievement of plan targets, the lines of communication and the machinery for co-ordination and liaison among them should be worked out and where their participation is complex, such techniques as PERT or CPA should be employed to establish their interaction on a time-priority basis.

11.2 Elaborating the Plan and reducing it to programmes and projects is administratively a function of delegating the implementation to branches, regional organizations and institutions. Each such delegation of function has to be accompanied by a delegation of authority and responsibility which, for effective functioning of an administrative organism, should be co-equal and co-terminus. Thus is set in motion, as illustrated by the diagram on page 69 a two-way spiral where (i) instructions and directives are passed from the higher level to the lower; (ii) information and data are obtained from the lower in the form of reports;

(iii) instructions and directives are evaluated in the light of such reports and (iv) revised instructions and directives are issued to the lower level. The process once set in motion goes on and on without interruption. Every level of administration which receives a directive from the higher level is autonomous within the limits specified by such directive and it is within this sphere of autonomy that an administrative level performs best. While this principle applies with equal force to all offices and branches of a bureaucracy, it is particularly important as a means of galvanizing institutions such as universities, colleges and schools into action. With powerful informal organizations which, as in the case of students' and parents' organizations, are not bound by official regulations, these institutions work more efficiently when the control exercised over them is minimum. The speed with which the higher level solves the problems reported by the lower level is the key-note to administrative effectiveness in plan-implementation, and this requires the organization of problem-solving services at every level of the administrative machinery.

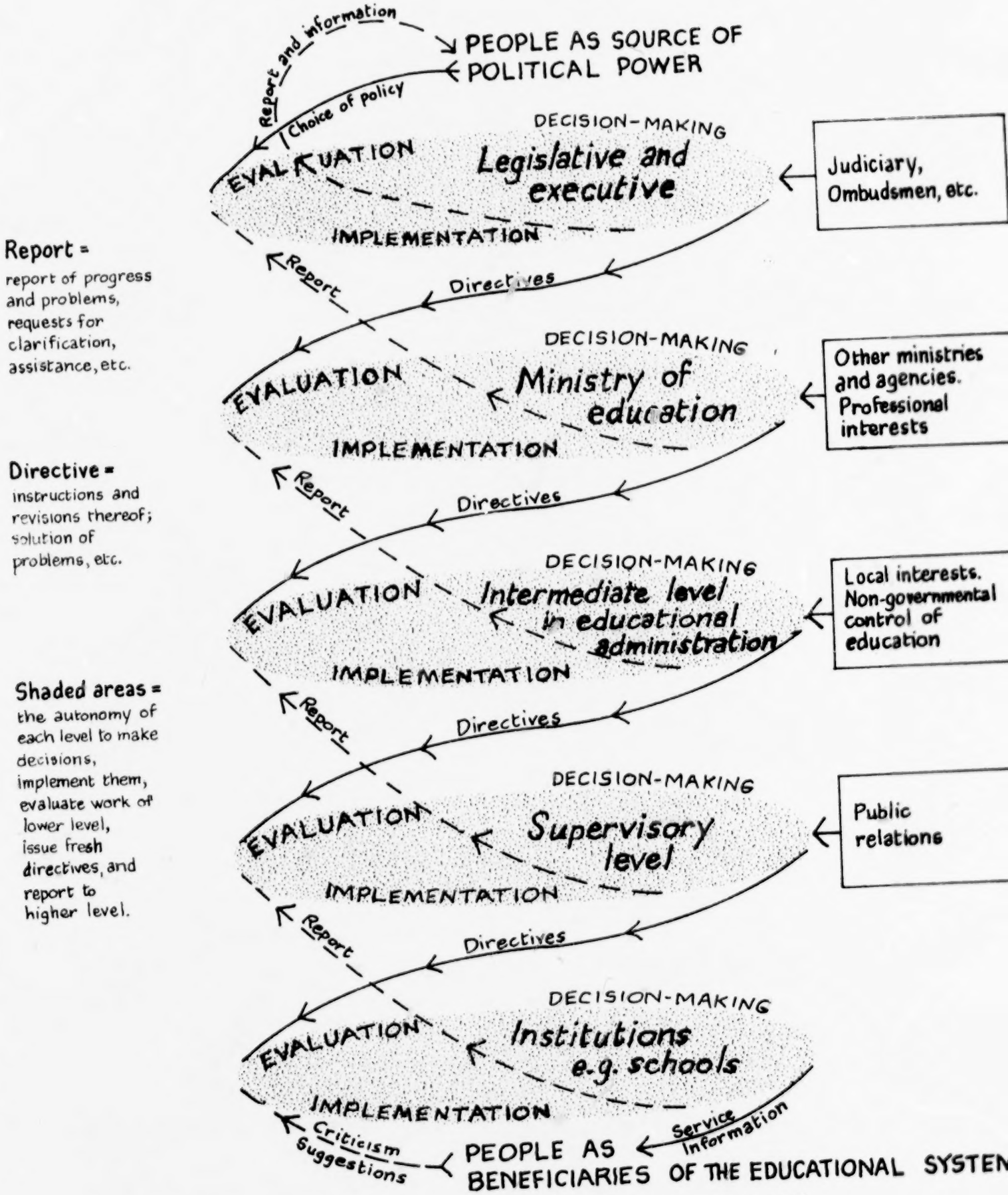
11.3 The faithful servant of the Plan is the annual budget, hence the need for assigning its preparation to the Planning Unit. The budget is an effective instrument of delegating functions and responsibilities to various levels. Apart from the legal force it has, it specifies operational limits in terms of money, allowing the administration to stretch it to the utmost according to the capacity and the ingenuity of decision-makers. Even if the Parliament approves a budget in outline, indicating only broad divisions of expenditure, it is advantageous for plan implementation if the budget is further analysed into programmes and projects and subdivided according to different levels of administration right down to that of the school.

11.4 Plan implementation calls for a continuous: (i) review of progress; (ii) evaluation of the effectiveness of methods; (iii) revision and adjustment of targets and strategies and (iv) measures to meet unforeseen contingencies. Equally important is to extract out of the experiences gained by the implementation of one plan, guidelines which will be useful in the preparation of the next plan, as the implementation of the current plan and the preparation of the next have to be a simultaneous and closely intertwined process.

12. Conclusions

12.1 The functional analysis of educational planning from the point of view of the Ministry of Education leads us to several conclusions:

(a) the Ministry of Education is the most desirable administrative organization to undertake educational planning;
(b) the ideal machinery for planning is an Educational Planning Commission/Committee headed by the Minister himself or the Permanent Secretary with the Planning Unit as its Secretariat;
(c) the Planning Unit should be entrusted with the preparation of the budget and the head of that Unit should be near enough in status and official standing to the highest echelons of the Ministry to be able to exercise the requisite authority;



Report = report of progress and problems, requests for clarification, assistance, etc.

Directive = instructions and revisions thereof; solution of problems, etc.

Shaded areas = the autonomy of each level to make decisions, implement them, evaluate work of lower level, issue fresh directives, and report to higher level.

Diagrammatic representation of the two-way spiral of administrative functioning (Para. 11.2)

(d) the Central Planning Organization would have served its purpose in relation to educational planning when it prepares a macro-economic plan, sees to the preparation of a manpower requirements report and makes itself available to educational administrators for consultation;
(e) the process of planning to plan requires, besides data gathering and processing, the re-organization and modernization of the administrative machinery;
(f) planning in education calls for the identification of 'variables' in educational processes and practices and modifying them to suit the demands of targets and constraints of resources;
(g) the plan formulation is a function of extensive consultations for which an efficient and psychologically conditioned machinery is a vital necessity;
(h) plan implementation, which embraces the entire administration, is immensely facilitated by a well-defined delegation of authority and responsibility, with a measure of autonomy guaranteed to each level, and particularly to the universities, colleges, schools etc.;
(i) the budget is the faithful servant of the Plan and it can be utilized for more purposes than purely specifying financial provisions;
(j) the implementation, evaluation and revision of the current Plan and the preparation of the next have to be a simultaneous process.

ANNEX I

PARALLEL SYSTEMS OF EDUCATION

A. The Traditional or Indigenous System, still strong and effective especially in developing countries where a substantial percentage of children of school-going age does not make use of the modern educational system.

(1) Type or Institution
Informal or social.
Administrative Organization
Customs, taboos, family and social values and traditions, tribal laws, etc.
Planning Device
Nil.

(2) Type or Institution
Formal - primarily religious or monastic, sometimes catering for lay needs, e.g. literary and linguistic studies, indigenous medicine, etc.
Administrative Organization
Monastic organizations managing endowments, royal grants etc. Trusteeships and foundations.
Planning Device
Ad hoc and sporadic, if any.

(3) Type or Institution
Vocational - apprenticeship and gradual absorption into hereditary vocation or craft.
Administrative Organization
Caste laws, guilds, tradition.
Planning Device
Nil.

B. The Modern System - evolved in Europe and introduced by colonial powers to the rest of the world or adopted voluntarily by some countries in the process of modernization.

(1) Type or Institution
(a) Missionary schools mainly evangelical in purpose established by churches and visiting missionaries and maintained by international or national missionary organizations.
(b) Schools by indigenous religious organizations on the model of Christian missionary schools.
(c) Schools established by secular organizations for the promotion of the national or a minority culture.
(d) Schools established by profit-making or non-profit-making private institutions and individuals.
(e) Teacher-training institutions on a similar basis to the above schools.

Administrative Organization

Churches and missionary organizations, both national and international; religious and cultural bodies; trusteeships: foundations; managed through boards of governors or management. State-aided or not; totally or partially independent.

Planning Device

No formal planning in most cases due to vagaries of financial provision. Some planning where state support is guaranteed by law or where well-established organizations and foundations manage the schools.

(2) Type or Institution

(a) Public schools initially established to supplement missionary effort - to train minor grades of civil servants or as a social service, i.e. a minimum literacy programme. Progressively expanded to meet increasing demands from under-privileged section of the population or to meet expanding educational demands.

(b) Teacher-training institutions.

Administrative Organization

Government Department of Public Instruction or Education, usually centralized and bureaucratic. In some cases, municipalities, and local educational authorities. Usually 'caretaker' or supervisory in function. Progressively passed on to Ministries of Education with specialized services and decentralized administrative units; gradual involvement of lay opinion in school administration.

Planning Device

Annual budget adopted by law or decree. Progressive introduction of planning.

(3) Type or Institution

Vocational and technical institutions - directly related to requirements of government technical departments to begin with and later extended to meet general manpower needs or targets in national development.

Administrative Organization

The government department responsible for the speciality and sometimes the Department or Ministry of Education. The administrative organizations in this type of education vary from country to country more sharply than in other fields.

Planning Device

Annual budget of the departments concerned. The section falling under the supervision of the Education Ministry is usually included in its plans.

(4) Type or Institution

(a) Professional institutions (e.g. law, medicine, engineering).
(b) Universities and colleges.
(c) Colleges of Advanced Technology.

Administrative Organization

Usually state-sponsored and state-financed with administration and policy-making entrusted to legally established corporations with both lay and academic personnel. Some managed by professional bodies. Private institutions managed by missionary and other bodies. Academic autonomy and involvement of the teaching staff in management.

Planning Device

Annual budget of government or a co-ordinating body established by government. Government-sponsored institutions figure in the national educational plan. Development plans drawn where enlightened bodies are in control.

C. Non-formal Education

(1) Type or Institution

Vocational and professional.

Administrative Organization

Government departmental programmes for pre-service and in-service training. Similar programmes by agricultural, industrial and commercial establishments. University extension services. Extension services of agricultural, co-operative and community development. Organizations, voluntary social workers.

Planning Device

Erratic and, sometimes, altogether absent.

(2) Type or Institution

Recreational and cultural.

Administrative Organization

Central Government or Local Government agencies. Voluntary organizations.

Planning Device

Almost nil.

THE NATURE OF THE EDUCATIONAL PLANNING PROCESS; SOME ADMINISTRATIVE IMPLICATIONS

by Raymond F. Lyons

Introduction

The paradox which lies at the basis of this paper is that in some countries there are educational 'plans' but little seems to be done about them, while in other countries there are apparently no 'plans' but education seems to be developing in an impressive way. The aim of this paper is to show that this paradox can be explained in terms of the degree to which planning makes a useful contribution to administration in changing education and increasing the provision of education. It will be suggested that the conventional concept of educational planning is too narrow in terms of the types of plan, the levels of administration which are involved in the different phases of the planning process and the communication and co-ordination which exists between them and which varies in form according to the nature of the control of education. Expertise and training for it will be shown to be important factors in successful planning. The paper will examine some practical arrangements which are desirable if planning is to be firmly integrated within administration. 1/

What types of plans are required in educational administration?

The planning process may be equated with 'good' administration; planning is part of administration. Every administrator is, of course, convinced that he provides 'good' administration. But we will assume that good administration is change- and development-oriented, i. e. it adapts what is done to what is needed as a result of changing circumstances. Bad administration does not.

A definition of planning and the planning process as they relate to administration may be seen in the main document prepared for the Unesco International Conference on Educational Planning (Paris, 6-14 August, 1968). We note 2/ that 'Educational planning is ... the application

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1/ We shall equate management and education as they mean the same thing.

2/ Unesco, Educational planning: A survey of problems and prospects, Working Paper for International Conference on Educational Planning, Paris, August, 1968, pp. 10 and 11.

to education itself of a rational, scientific approach to examining one's alternatives, choosing wisely among them, then proceeding systematically to implement the choices thus made'. In this perspective, educational planning is much more than the drafting of a blueprint; it is a continuous process. The process entails the following succession of interdependent actions:

- clarification of educational objectives;
- diagnosis of present conditions and recent trends;
- assessment of alternatives;
- translation of plans into action;
- evaluation and adjustment.

This definition of the planning process covers the essential elements of good administration in that it includes not only the elaboration of blueprints but also their translation into action subject to control and subequent adjustment. The conventional view of planning is that it is confined to the elaboration of blueprints and, hopefully, to their evaluation. Analytically, planning should be seen as distinct from implementation. It should include evaluation. It is a matter of preparing, and subsequently evaluating, a set of decisions for future action aimed at achieving a specific set of goals. 1/ But the emphasis by Unesco on the planning process, the identity between planning and administration, is justified precisely because much administration is bad administration in that it is not able to be forward-looking in its organization and operation.

Administration uses several different types of plans, and the national plan for education represents a complex structure of such plans. In order to look more deeply into the nature of planning and its role in administration we may refer to the concepts as they affect the private sector and as set out by Professor William H. Newman in his book Administrative Action. 2/ His work is focused on the problems of administrative action in the individual firm, where profit based on efficient operation and dismissal of executives if it is not achieved are essential criteria. His analysis has considerable relevance to the public sector, where the satisfaction of political and traditional demands is the objective and dismissal of either politicians or civil servants is often a most difficult business, seldom directly related to the criterion of efficient operation.

Newman defines administration as the'guidance, leadership and control of the effort of a group of individuals towards some common goal'. He distinguishes five basic processes in administration.

1/ H. S. Parnes, Manpower in economic and social growth, AID, 1967.

2/ W. H. Newman, Administrative Action, London, Pitman, 1963, second edition.

> First, planning, which is 'determining what shall be done'. This covers a wide range of actions: clarification of goals, establishment of policies, mapping-out of programmes and campaigns, determining specific methods of procedures and fixing day-to-day schedules.
>
> Second, organizing: grouping into administrative units the activities necessary to draw up and carry out the plan and defining the relationships among the executives and workers in such units.
>
> Third, assembling resources: arranging the use of executive personnel, capital, facilities and other things or services needed to execute the plan.
>
> Fourth, supervising: day-to-day guidance of operations. This includes issuing instructions, co-ordinating detailed work, cultivating good personal relationships by the boss with his subordinates.
>
> Fifth, controlling: seeing that the operating results conform as nearly as possible to the plans. This involves establishment of standards, comparison of actual results against the standard and undertaking the necessary corrective action where performance deviates from the plan.

In addition to these five processes, there are non-delegated activities such as outside contacts, public relations and so on. But we can observe that administration is closely tied to actual operations, and if planning is to be meaningful it must be inextricably tied to this process of transforming plans into reality.

We can also look at administration in terms of defined areas or subjects. In a firm it can be sales, purchasing, production, accounting, finance, personnel and so on. In a ministry of education it may be in terms of levels of education, building, books and equipment, purchases, transport, finance and so on. The nub of the problem is how to use planning in this process so that the elements of time, space, functional structure and human behaviour are co-ordinated to get defined jobs in the different areas of the educational system well done.

We can observe close identity between the Unesco definition of the planning process and Newman's definition of the processes of administration. Planning, as he defines it, is much wider than the concept of a plan which ends up in a pigeon-hole! It is firmly linked in all its elements with the processes by which plans are translated into action. It covers the entire range of plans needed for good administration. These include goals, single-use plans, standing plans and policies. They range from formulations of broad objectives down to detailed plans for the activity of a single individual on one day.

Goals are the expression of the results to be achieved. If planning is to be meaningful there must be clear official recognition, on an appropriately durable basis, of the goals. In the public service, recognition of goals is a political act and it is frequently difficult to ensure that decisions are taken on the basis of the facts, the balance of advantage and the participation and agreement of the public. When we examine existing educational plans we can observe that some of them are goals which cannot be maintained, followed through and used as a basis for action by

the administration. One reason for this is political instability. Governments may change frequently, and higher civil servants also, and the views of the new men may be at variance with those of their predecessors. But even when relative political stability obtains, the existance of political pressures, for example for secondary education, may be such as to prevent the maintenance of goals.

Public organization is public precisely because the community has decided that the interests involved are such as to be beyond the proper scope of private profit. Whether we consider defence, health or education, we see, in the development of the public sector, a history of gradual movement towards public control and of subsequent difficulty in defining the goals necessary for administering public organizations in the light of new factors and pressures which are continually coming into being. Therefore one of the reasons why educational administration may be less effective then that of a private concern is that, in establishing goals and realizing them, its operation, staffing, relationships with the government are subject to a continuous, delicate and involved process of negotiation with and adaptation to a cumulative series of pressures.

A clear recognition of goals to be achieved is essential if planning is to mean anything. Each executive, from the permanent head of the ministry to the teacher, should, in principle, know the aim of his particular activities. The difficulty is that, in many cases, these aims are not constant. They are not adapted to change and development for the simple reason that the problem of defining and maintaining goals is beyond the administrative and political capacity of the ministry of education at a given time.

We can also examine the relevance of goals to planning by seeing to what extent goals are reflected by the relevant plans. Educational plans in many countries represent a series of goals for education over the long and medium term. They may take account of, or pay lip-service to, the two major restraints on educational development, namely job possibilities and what education should do about them, and the amount of money which is likely to be available for education. They sometimes contain general proposals for making the provision of education more relevant to the child's needs and more efficient. But their usefulness as goals is immensely increased when they are supported by a structure of single-use plans and standing plans through which they can be realized. This is at the heart of the problem of modernizing educational administration through due attention to planning. If the first task is to define and maintain goals using information and analysis, the second task is to map out a course of action to realize goals, taking account of budgetary possibilities. In plotting such action and building up a structure of plans, the administrator can make use of single-use plans which lay out the course of action to fit a specific situation and are finished when the goals are reached, and standing plans which are designed to be used again and again. 1/

Single-use plans include major programmes, projects and special programmes.

1/ W. H. Newman, op. cit.

A major programme outlines the principal steps or individual projects needed to accomplish an important objective. It indicates who will be accountable for each step and the approximate timing of each.

To take one example, let us suppose that an educational plan contains, among its various programmes, a major programme for the establishment of improved large-scale arrangements for the full-time training of technicians at post-secondary level. We may distinguish the following seven elements in such a major programme:

(a) an employment survey to determine job possibilities and the necessary scope of the programme;

(b) location and preparation of detailed projects for the building of training centres;

(c) construction of the building schedules;

(d) training and recruitment of teachers;

(e) supply of books, material and equipment;

(f) provision for capital and recurrent finance;

(g) ensuring the co-operation of teachers, parents and pupils.

Major programmes have been carried out effectively, with all the basic preliminary work of preparation, communication, schedules and responsibility for implementation, in countries where there is no over-all plan. Where there is an over-all plan they sometimes have not been carried out because they have not been articulated and prepared for implementation within the administration. It may be noted that major programmes which are scheduled and followed through are the iron rule in private enterprise but not always in educational administration. It would be valuable in this connection to examine how programmes for the training of teachers (a key to effective educational planning) have been drawn up and carried through in a number of countries with different political and administrative situations.

Major programmes consist of a number of projects. These are clear-cut and distinct elements of the programme, or individual pieces of work, e. g. the replacement of an inadequate school building. To take an example, the administration of a large organization for private education decides that, as part of its major programme for developing secondary education, salary administration should be based on job evaluation. The initial planning is assigned as a separate project. The following steps are involved:

(a) organizing and staffing of the project;

(b) setting policies for the project;

(c) preparing job descriptions of the teaching staff;

(d) evaluating the jobs;

(e) making market surveys of wage rates for comparable positions;

(f) developing a wage structure;

(g) installing the plan;

(h) informing and negotiating with the teaching staff.

Special programmes are the third type of single-use plan. They deal with one phase of operations. Unlike projects they contain no clear completion date or point; they cover a continuing problem. For example, the replacement of high-level personnel in the ministry of education. How should this exceptional problem be dealt with? The director-general is 58, retirement age is 60. The chief educational officer is 54, suffers from ulcers and alcoholism; is not very useful. The head of the planning office is 52 and technically very weak. The finance officer is 54; he is competent but unco-operative. The requirement is to develop a programme for replacement and training. This is the work of the personnel division of the ministry. It is a delicate task.

Business planning pays considerable attention to standing plans, i. e. arrangements for continued actions which can be used again and again. These include the time and motion aspects of the man on the job doing a defined task, i. e. the review of production methods and disposal of the labour force in production. Standing plans of education represent the day-to-day organization of all the operations which count as far as education is concerned. One example is the time-table of a defined level and grade of education. Another is the method of teaching. Another is the way an inspector undertakes his duties. The legal structure represents a series of standing plans for the operation of education. The structure of education in terms of levels and types is the framework within which standing plans are implemented.

When we consider the reform of education we can see it as a matter of formulating and implementing new standing plans and policies. Policy is a general plan of action that guides members of an enterprise in the conduct of its operation, e. g. policy in respect of hiring teachers according to their qualifications. The reform of standing plans and policies is a central task for modernizing education and its administration.

We should remember the importance of the budget as an instrument for co-ordinating different types of plans. It supplements and acts as a control for purposeful and integrated planning. It can help to show where unproductive and diverging work can be avoided. It can be a guide by indicating blockages in achieving programmes. It is a mirror in money terms of what has to be done. If the first task is to define goals in the light of analysis, the second task is to map out the single-use, standing plans and policies taking into account budgetary possibilities.

Newman's model of planning in business administration provides a tool with which to approach the educational planning process or 'good' educational administration. We see that the preparation of a structure of interdependent plans and policies and adequate arrangements for their implementation is necessary if identity between the planning process and good administration is to be reached. This is not just the task of a planning office, though its task is essential. It involves politician, administrator, inspector, headmaster and teacher, all of whom divide their time between

planning, organizing, assembling resources, supervising and controlling. The essential point is that the success of 'the plan' will depend on the large numbers of people who have fitted their different types of planning into it so that it represents a realistic blueprint of what shall be done, and who have, or have not, transformed it into what has been done. This is a question of levels of planning and of administration, of administrative structures and functions, of trained people and political determination.

The division of labour in planning

A striking feature of recent discussion of and writing about the educational planning process has been the emphasis placed on the 'macro' or systems approach. This stress upon educational planning as an aggregative process 'in which a large number of different units interact... and similar changes in the output can be achieved through many alternative variations in the components' 1/ has been of considerable service in the 'diagnosis' of education. On the other hand, and in a dynamic as opposed to a static sense, the aggregate systems approach requires to be supplemented by increased attention to the problems of sub-systems planning in order that it should be, in fact, an aggregative process.

This point is implicit in Dror's comment on the possible weakness in the systems approach 2/ ' A less optimistic implication of the systems view of public policy-making is that improvements must reach a critical mass in order to influence the aggregative workings of the 'system'. Improvements which do not reach the relevant impact thresholds will, at best, be neutralized by countervailing adjustments of other components (e.g. a new planning method may be reacted to in a way making it an empty ritual), or at worst may in fact reduce the quality of aggregate policies (e.g. through possible boomerang effect, reducing belief in human intelligence with possible retreat to some types of mysticism, leader-ideology, etc., or by making and implementing wrong decisions more 'efficiently', thus abolishing a basic social protective mechanism - inefficiency as reducing the dangers of foolish decisions and permitting slow and tacit learning).

That the whole view may be dissociated from the parts which give it validity is a danger implied in the definition of educational planning given by Dr. C. E. Beeby 3/ :

1/ Y. Dror, Some normative implications of a systems view of policy-making, Rand Corporation, 1968

2/ Y. Dror, Ibid

3/ C. E. Beeby, Planning and the educational administrator, Paris, Unesco/IIEP, 1967 (Fundamentals of Educational Planning, 4).

'Educational planning is the exercise of foresight in determining the policy, priorities and costs of an educational system, having due regard for economic and political realities, for the system's potential for growth and for the needs of the country and of the pupils served by the system' (our underlining).

The author notes that this definition differs from other recent definitions in several respects: (a) while stressing the importance of the new economic dimension to planning, it still covers processes that went on long before the economists became actively interested in the planning of education; (b) it draws no sharp line of distinction between the making of a plan, the adoption of a plan, and its implementation; (c) it lays stress on the political realities, on the balance of forces affecting the adoption of a plan; (d) it mentions the needs both of the country and of the children; (e) it gives special consideration to an educational system's capacity for growth.

This definition emphasizes the over-all view of planning the educational system. It identifies planning (see (c) above) with the planning process and hence with administration. It implies that it is possible and desirable to determine the aggregate movement of education from a central position. Its validity depends on whether planning at this level can be supported by the administrative processes required to produce and implement relevant plans. This is a matter of the scope of aggregate planning, its technical quality, of the institutional arrangements, reporting and co-ordination required to draw it up and decide on it, the structure of individual plans contained in it, the organization, controls and budgeting arrangements required to transform it into reality. The definition is acceptable and useful as an approach to planning at the central level. It requires modification in that it is necessary to place greater emphasis on the different stages of development of the planning process and on the need to work towards a structure of plans adapted to the different circumstances of control of education.

The case for aggregate planning of education rests mainly on the benefits which can accrue in using resources wisely and obtaining sufficient investment and recurrent resources when education is part of short-term and perspective plans for economic and social development. These plans, imperative or indicative, provide a valuable series of goals in respect of certain key areas: investment, enrolment in relation to employment possibilities, flow of budgetary funds. But it is of decisive importance, in view of the social role of education, that the goals of education itself should be equally clearly defined in terms of reform of structure and content. This is frequently not the case.

If we accept that perhaps as much as nine-tenths of available money, resources and administrative skills in education are devoted to meeting unavoidable obligations arising from past decisions, the field of manœuvre for change and development in response to new economic circumstances is circumscribed. The major problem is how to recast the disposition of the total effort over time, including the commitment of the marginal increments arising from growth. This is first

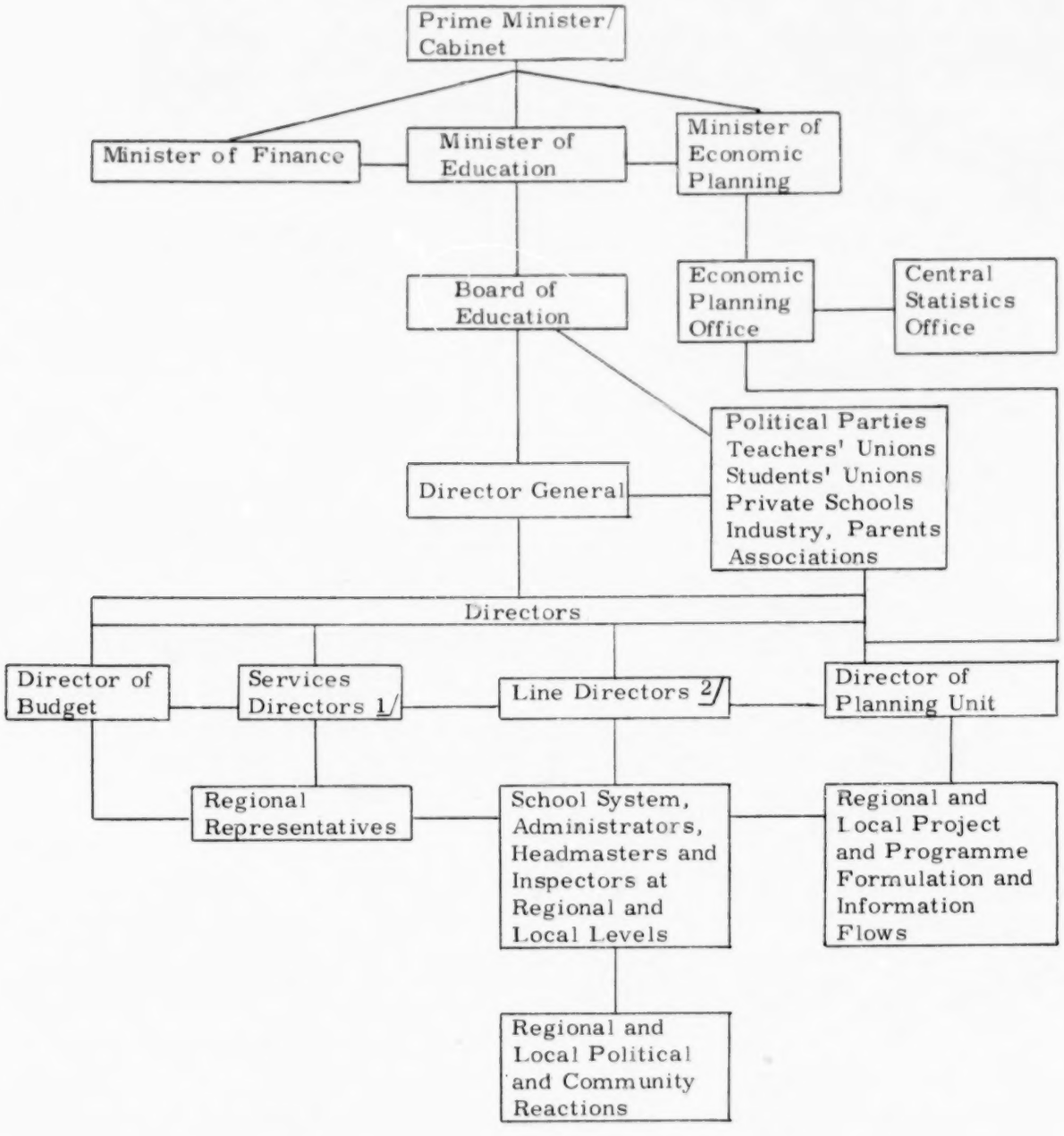
and foremost an educational problem. It has explosive social and political implications. This is apparent if we examine, to take two examples, the effects of the movement for the reform of seco dary and higher education in France on the fulfilment of the French plan, or the introduction of co prehensive secondary education in England as it affects central/local goal-setting. The planning o reform should be a determinant factor in the aggregate planning of education. It is a much more delicate and complex operation than the planning of resources in response to economic criteria. It should involve the widest consultation and careful planning, before political decisions are taken an goals are set as part of the national economic and social plan or the central establishment of national objectives. This is an argument for improved formulation of, and greater emphasis on, r standing plans for education within educational planning at all levels.

Planning an educational system must take into account the dispersion of the sub-systems which compose it. It is difficult and sometimes undesirable or impossible to plan every element o the system centrally. Diagnosis at the central aggregative level provides a most important tool w which to assess the performance of the different sub-systems and on which to base proposals for improved and changed performance. But the realization of these goals is a matter of using the variety of instruments available to administration, ranging from direct control and operation to budgetary pressures and advice. For example, in the Soviet Union primary education is a local r ponsibility. In many countries private education has only a tenuous connection with public policy. Universities are frequently worlds unto themselves. Non-formal education, which is potentially a important for national, social, and economic development as formal education, is widely diffused under many different ministries and bodies and its over-all goals are generally not examined in aggregate as part of systems diagnosis. Mass media are separately controlled and organized. Though all the above types of educational effort are part of the educational system in the wider sense they are frequently not included in its aggregative diagnosis.

The difference between the plan at the central level which comes to nothing and the succe ful plan can be seen as the outcome of the incorporation of planning into administration at four le the political, central professional, regional and local, and the institutional or 'on-the-job' levels These levels are indicated in the chart on page 84 which represents one of many possible admini tive solutions.

The political level determines the goals of education, provides the directives for plans, decides what proposals to approve, provides general supervision of the implementation of plans. These functions are normally vested in the minister of education, who is responsible to the prime minister and the cabinet. He is advised by the director-general of education and the board education which represent the professional basis of administration as well as the complex structu of political, professional and social interests involved in education, respectively. It is rare for a minister to have the possibility of examining and determining a strategy for the development of th

Chart 1. The place of the Planning Unit within the educational system



1/ Personnel, building, equipment, supplies, textbooks, legal advisor, etc.,

2/ Primary, secondary, technical, higher, adult.

entire educational system in the sense discussed above. It is more common that he can do so for the system of public formal education. His field of decision should include both quantitative and qualitative planning (reform etc.); the first, which deals with real resources is made easier when national economic and social planning is functioning, the second is frequently the subject of decisions without planning in response to political pressures. The decisive question is whether his decisions are based on the prepared advice of the professional central level and, in turn, whether effective links exist between that level and the two subordinate levels which ensure 'feasible' advice and subsequent implementation of decisions.

The goals of education are reflected in the perspective plan, the five-year plan, annual budgets for education and in the laws, policies and instructions which govern the day-to-day operation of education. The second level of planning is one at which the professional work at the central national level takes place and where the central responsibility for planning and implementation resides. Planning in the sense of quantitative change or of reform of standing plans is undertaken by all the senior officers of the ministry but quantitative planning is better articulated than qualitative planning.

Thus the line directors are responsible for preparing programmes for the respective levels and types of education and ensuring that these programmes are feasible in that they rest, at regional and local levels, on a structure of feasible projects. This is true for major programmes whether they concern teacher training, the supply and use of new text books or the introduction or use of new media. They control, or are in close contact with, the administration at regional and local levels and institutions through administrative staffs, inspectors and school directors. The formulation and implementation of plans depends on these directors and on the quality of their linkage with the two subordinate levels. It is clear that senior administrators in the line directorates must understand planning and be able to do it. The services directors and the director of the budget work closely with the line directors and integrate their planning with them.

If all directorates and administration at its four levels are involved in planning, what are the functions of the planning unit at the central professional level in the ministry of education? Four major functions may be distinguished in relation to the preparation and evaluation of aggregate plans:

(a) the quantitative and qualitative diagnosis of educational services and the identification of the resource implications, and of alternatives involved in giving effect to defined goals (e.g. raising of the age of compulsory school attendance by one year);

(b) calculation of total educational expenditure on the basis of political directives and formulating alternatives for educational enrolment programmes within the plan or budget period. This means the costing of total educational enrolment programmes in terms of investment and recurrent expenditure, and discussion of proposals

with the ministry of economic planning and other bodies in order that they should be consistent with availabilities of finance, of real resources, and with national employment needs and possibilities;

(c) ensuring the consistency in terms of finance, real resources and phasing of the programmes to meet the resource requirements implied by the enrolment programmes or by changes in the quality of education: teacher supply, building, equipment, materials and books, food and health facilities, transport;

(d) following through the implementation of programmes which have been decided.

Three conditions for successful work may be mentioned. First, in undertaking aggregate diagnosis and plan formulation, that the planning unit should have access to regular information flows from the regional and local levels of the educational system, other directorates, the national statistical office, universities and other bodies; this information concerns pupils, teachers, buildings, finance and all the other matters necessary for planning. Second, that the planning unit should co-operate with the line and service directorates in helping them to draw up programmes which are feasible, having regard to (i) the over-all manpower and financial constraints; (ii) the necessary preliminary work at the project level undertaken regionally and locally and by institutions. Third, that the director of the planning unit should have adequate communication with all directorates 1/ within the ministry and with the relevant bodies outside the ministry.

If the central level is primarily concerned with macro-planning and administration, the regional and local levels are equally important in the formulation of plans and more important in their implementation on the ground. In England, for example, 146 local education authorities with responsibilities for populations ranging from 30 thousand to 4 million draw up the detailed plans for education under the supervision of the locally-elected bodies. Planning at the central (ministry of education and science) level is concerned with such matters as total finance for the school and university system, teacher supply, national programmes for change in education, improvement of educational standards, research. In France, which has a greater degree of direct control by the central government, work by the regional authorities on the carte scolaire, and in a number of other institutional forms, is vital in preparing the aggregate proposals for investment in new educational institutions and in implementing them once the plan has been adopted at the national level and money has been made available.

1/ In the chart, the director of planning works to the director-general of education but is hierarchically equal to the other directors in the ministry. This is a sensitive question and many solutions are adopted in practice.

The regional and local authorities provide the 'bricks and mortar' for the central planning of programmes by their planning of projects and carrying them out. Here is the Achilles heel of aggregate educational planning. If the national plan is not directly and realistically related to the total of regional and local requirements for change it will be impossible to implement. In other words, regional and local educational administrators must have undertaken a great deal of preliminary work and discussion, in co-operation with all those responsible for the different practical steps of organizing new institutions or changing existing ones, in order that lots of feasible projects can add up at national level to a feasible programme. The machinery must also be adequate so that finance is promptly available and contracts made and carried out once the green light shines from the capital.

Administrators at the regional and local levels require planning skill. Project identification, costing and detailed organization require experience and training. It is not only technical skill in defining detailed educational objectives, assembling data, preparing projects; it is also political skill, since the location and character of educational institutions is a matter of intense interest for many different groups. Thus while the total financial and resource limits and a variety of educational criteria for regional and local development will be indicated by the central authorities, the detailed working out of development will be undertaken regionally and locally. This is a difficult and time-consuming task.

When it comes to implementation of programmes, speed, money flows and a structure of regional and local agreement (a political function) are essential. The improved techniques for programme implementation, programmed budgeting and critical path analysis depend on this structure of preliminary regional and local work. It is a matter of project preparation, arriving at the appropriate decisions and implementing them.

The fourth or institutional/on-the-job level concerns the headmasters, teachers, pupils and inspectors, who are the link between the centre and the educational institution. At this level the standing plans concerning what is taught, and how it is taught (time-tables, methods, books) are applied and reforms introduced. Here is a major repository of wisdom, of teachers, directors, inspectors, pupils and parents in relation to reform; the administrative problem is to mobilize it. It is the place where all educational administration, in both its quantitative and qualitative aspects, is focused.

In some countries there is more freedom available for headmasters and teachers to innovate, amend their standing plans, than in others. Since the main question underlying education and its planning is to determine the purposes of education in the light of the needs of society, here at the 'grass roots' is the level where proposals for change may be discussed and tested.

If, as we have seen, planning is done by administrators, together with their other tasks (organizing, assembling resources, supervising, controlling) it is an expertise the use of which is not confined to the planning unit at the central level, where four or five key persons are normally

identified (planning officer, assistant planning officer, statistician, accountant, architect). The line directorates and services directorates, regional officers and (where appropriate) local officers must be skilled in it. Educational planning officers are required in the cabinet of the minister and in the economic planning organization.

Special attention requires to be given to the introduction of a planning structure at the four levels for the reform of education. Both quantitative and qualitative planning depend for their implementation on the understanding and support of the administrative and teaching staffs, the pupils and the public.

It is therefore necessary that personnel divisions of ministries of education should devise intensive programmes of training in planning in the country and abroad for administrators 1/ and that the ministry should take the necessary steps in organizing research and discussion to involve mass participation at the four levels in plan preparation and implementation.

Conclusions

The educational planning process and 'good' administration are identical. Educational planning is the forward-looking part of educational administration and the means by which administration can become modernized, in the sense of responding more effectively to the needs for change. It makes a more useful contribution according to the extent to which (a) different types of plans are integrated in the aggregate plan; (b) the four levels of administration are involved in building up this structure of planning and in implementing it according to the lines of budgetary and educational control. Arrangements for quantitative planning are weak in most countries in the above sense, arrangements for the planning of reform are weaker. However, in neither quantitative nor qualitative development is it possible to plan the 'educational system' from one day to the next; feasible programmes and projects at the regional level in respect of defined sub-systems already represent a useful start.

Planning staff are required in greater numbers than is generally assumed, in order to provide a backbone structure of plans for administration. Quantitative planning is a technique and way of looking at educational development which any reasonably intelligent administrator with

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1/ Administrators with the appropriate educational background make good planners and trained planners 'parachuted in' can make good administrators.

a head for figures and no fear of economics or economists can learn. 1/ But training is needed to enable him to learn it, and one of the first prerequisites for planning is an in-service and study abroad approach to training in and information about planning. The planning of reform is a technique, educational, sociological and political, which has yet to be clearly defined. This is the responsibility of the educational specialists at the different levels of administration and research. For both types of planning, which need to be closely meshed, it should be borne in mind that planning at the four levels is a technical, but also a secretarial and negotiating task. It covers a wide range of actions ranging from clarification of goals to fixing day-to-day schedules. It requires new techniques such as PERT and programmed budgeting so as to render programmes, projects and reform of standing plans, more effective in preparation and execution. It is part of good forward-looking administration.

1/ Y. Dror, Specialists vs. generalists, a miss-question, Rand Corporation, Santa Monica, 1968.

Part II Case studies of the relationship between planning and administration

FUNCTIONAL ANALYSIS AND ADMINISTRATIVE ORGANISATION OF EDUCATIONAL PLANNING: THE CASE OF FRANCE

by Raymond Poignant

Introduction

The originality of economic and social planning in France

The origin of French planning dates back to January, 1946, with the creation of the Office of the Commissioner-General for the Plan, responsible for preparing the first plan for the restoration and modernisation of the French economy, at that time ruined by the cumulative effects of the great economic crisis of the nineteen-thirties and the Second World War.

In 1970 the Fifth French Economic and Social Plan (1966-1970) will be completed and work on the preparation of the Sixth Plan (1971-1975) is already well under way. French experience in this field is therefore now relatively long.

It is no doubt, from some aspects, paradoxical, in a country where economic decisions still largely depend on the decisions of private business, to speak of 'national development plans'; it can nevertheless be said, objectively, that French planning remains a living reality, fairly closely integrated, as we shall see, in French administrative life, and, similarly, in political life, since the Plan is debated at length in Parliament, and, for example, the President of the Republic was able to say, on the occasion of the Fifth Plan, that its execution was 'an ardent national obligation'.

According to the definition of Pierre Massé, former Commissioner-General for the Plan, French planning '... is the search for a middle way, reconciling attachment to liberty and individual initiative with a common orientation of development'.

On the basis of this definition, a contrast could be drawn between 'imperative' planning and French planning, which might be called purely 'indicative'. In practice, however, this contrast must be qualified: it is no doubt true enough from the legal point of view, but it is much less so in fact: in the first place, what is called 'imperative' planning always leaves a certain number of hazards in existence, inherent in any human enterprise of this kind; and secondly, the French Plans are a complex combination of decisions and forecasts, constituting something quite different from mere 'indications'.

According to the definitions given in successive Planning Acts, the Plan constitutes:

- the framework of investment programmes;
- the guidelines for economic development and social progress.

In other words it includes:

- economic growth targets, the achievement of which will be sought, in particular, by appropriate investments;
- social policy targets;
- general policy directives, which the Government must follow in order to overcome the various constraints and reach the targets set.

One of the difficulties of this planning is obviously the existence of businesses with relatively autonomous powers of decision on whom the Plans are not legally binding; nevertheless, the Plan, in so far as it constitutes a gigantic market survey, has an undoubted operational value since it guides business policy and determines government policy.

The First Plan (1947-1953) was a sector plan limited to basic industrial activities. Starting from the Second Plan (1954-1957) French planners began to set aggregate growth targets, and to include in these targets all economic and social activities including the development of the education system.

PART I

THE CENTRAL PLANNING AGENCIES; THEIR FUNCTIONS AND RELATIONS

A. THE INSTITUTIONS AND FUNCTIONS OF THE CENTRAL PLANNING AGENCIES

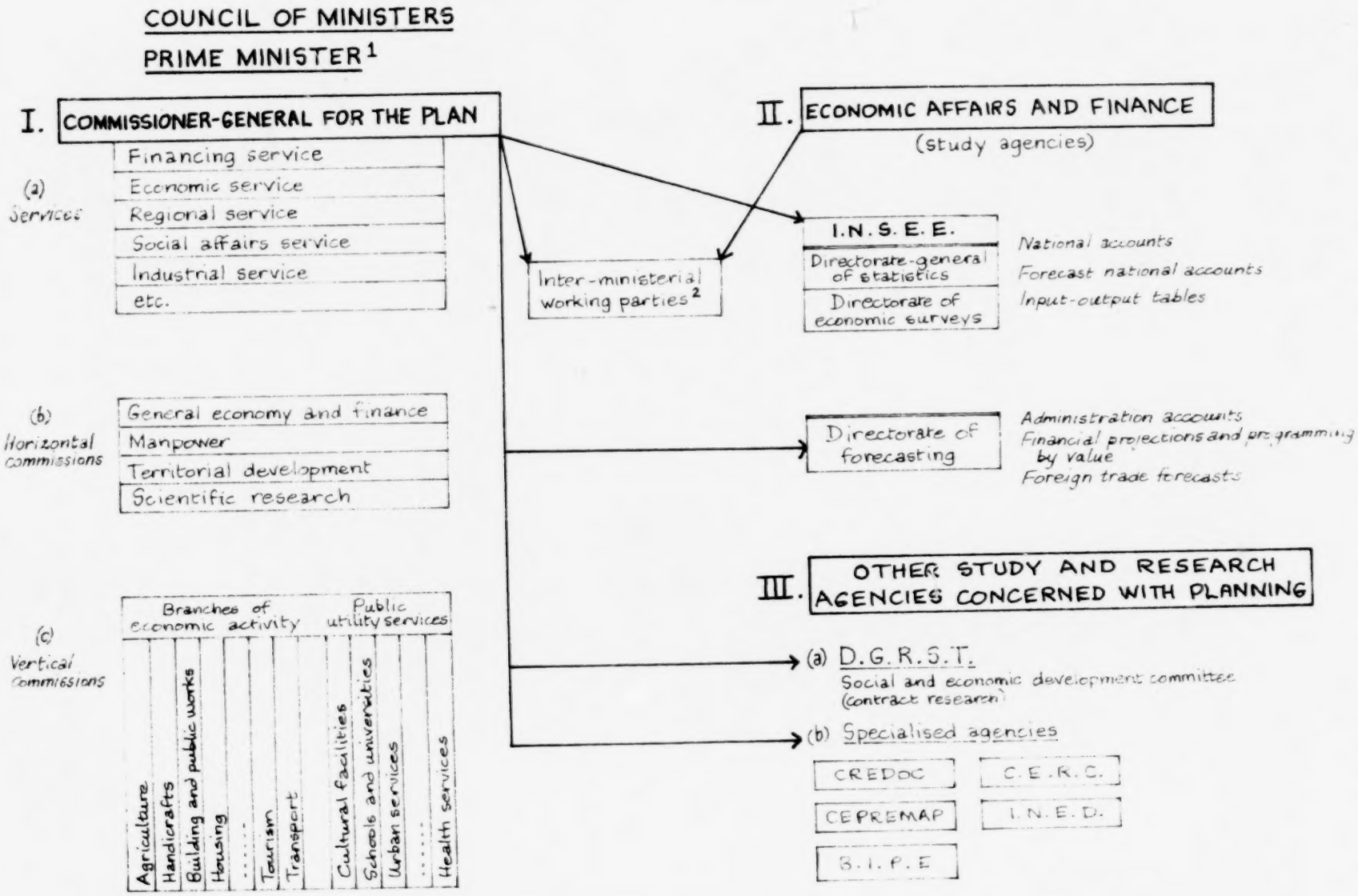
Figure No. 1 shows the structure of these institutions and their main responsibilities.

(a) The Institutions

The structure of these institutions seems somewhat complicated; it is essentially explained by the fact that the Office of the Commissioner-General for the Plan was designed from the outset as a fairly 'lightweight' agency for leadership, coordination and the preparation of political judgments; for this reason, the Minister for Economic Affairs and Finance has retained an important role in the preparatory studies for the Plan and in its execution (role of INSEE and the Directorate of Forecasting).

Furthermore, the research agencies directly concerned with planning, or created to meet its needs, are themselves somewhat disparate (cf. Figure No. 1). The structure of these research agencies moreover raises difficult problems which have not been properly solved; should specialised institutes be developed, should there be more research contracts? How can the whole be effectively coordinated?

Figure 1. Structure or central planning agencies



1. The Prime minister's duties in connexion with the plan are at present carried out by a Minister-delegate.
2. With the participation of the administrations concerned.

The greatest originality of these structures is the existence in the Office of the Commissioner-General for the Plan of a complex group of ('horizontal' and 'vertical') modernisation commissions 1/ in which the work is done in common by:

- experts from the central planning services and Ministries,
- representatives of employers' groups,
- trade union representatives.

The 'vertical' Commissions include the Commission responsible for setting the targets and assigning the resources for the School and University Plan discussed below.

(b) The basic functions

1. Basic economic information

   - perfecting economic and social information (development of national statistical services),
   - establishment of national accounts.

2. Exploration of possible lines of development

   - development of research preparatory to the formulation of the Plan,
   - elaboration of possible images of the future economy (technique of projections of the national accounts),
   - establishment of variants (growth rate, hours of work, etc.) so as to offer the political authorities a choice.

3. Coordination of the setting of sector targets

4. Permanent supervision of the consistency of sector targets with the fundamental equilibria of the Plan at the various stages of its formulation:

   - equilibrium of supply and demand for manpower,
   - general economic equilibrium (equilibrium of production and consumption, input-output tables).
   - equilibrium of exports and imports,
   - equilibrium of saving and investment,
   - equilibrium of public income and public expenditure.

5. The preparation of choices and political judgments at the different stages in the preparation of the Plan.

6. Coordination and supervision of execution:

   - supervision of investments of the public and private sector,
   - participation in the elaboration of annual budgets,
   - progress reports.

B. THE CENTRAL PLANNING AGENCIES AND THE POLITICAL; SOCIAL AND ECONOMIC WORLD

(a) The central planning agencies and the political authorities

This is a fundamental problem in a democracy, which is not easy to solve because of the necessary importance of the role of technicians.

1/ The structure of which has certain resemblances with that of Planning Ministries in Socialist countries.

The solution to the problem of 'democratic planning' has been sought:

- in the permanent supervision and choice of the government in the successive technical stages of the elaboration of the Plan;
- in Parliamentary supervision and vote at two stages; vote on the major options of the Plan and vote on the final detailed Plan (cf. Table 1).
- by confining the technicians to the role of proposing and preparing the choices.

(b) The central planning agencies and the other authorities

Relations between the Office of the Commissioner-General for the Plan and the Ministry of Finance have been settled by a division of competence which experience has proved to be satisfactory, in so far as, in the words of a Finance Minister, 'the budget is the faithful servitor of the Plan.'

Relations with other Ministerial departments are conducted on the following bases:

- the Office of the Commissioner-General has no administrative functions and therefore does not compete with the other authorities;
- the specialists from the various authorities join in the work of the modernisation commissions (sector planning) within their competence, and most frequently lead the work;
- to cope with these new tasks (participation in the preparation of a sector plan and execution of the Plan) the different Ministries have had to create and develop planning services and adapt their working methods accordingly

(c) The Plan and management and labour organisations

From the beginning of French planning the need for a large participation of management and labour has been recognised in the modernisation commissions; this participation lies solely in the technical field (role of experts).

Regional reform and the related decentralisation of planning should result in extending this participation to regional level; (Regional consultative bodies, the 'C.O.D.E.R.', have already been created with the Fifth Plan).

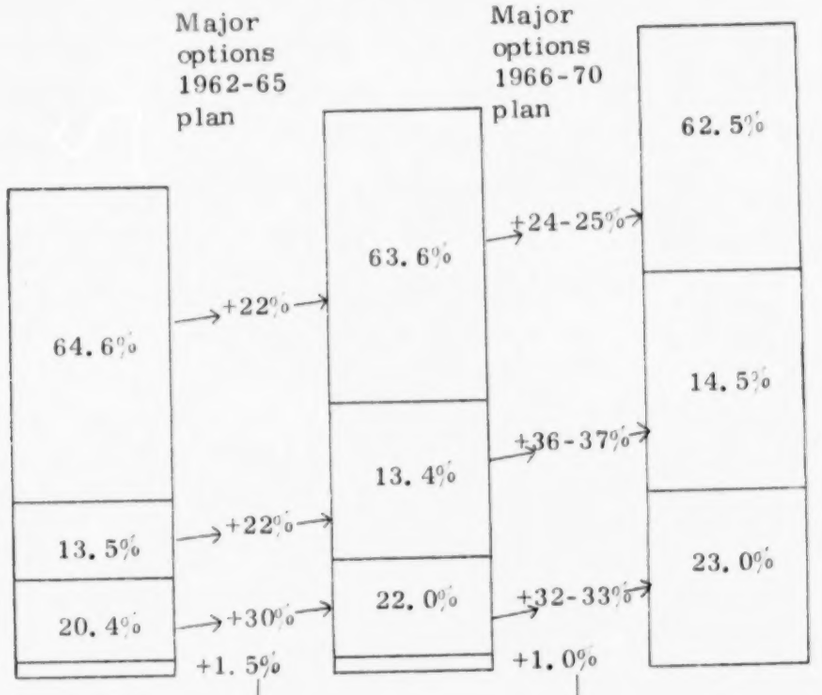
CONCLUSION

The success of a planning system of the type established in France depends on a whole series of factors:

- Political determination: (is it or is it not desired to define publicly and democratically the common development aims and to achieve them?)
- the acceptance of the system by the traditional authorities and their adaptability to the new tasks (need for prudent and progressive action by the central planning agencies);
- the desire for participation on the part of the leaders of social and economic life (trade unions etc.);
- the high quality of the technicians responsible for leading and coordinating all this work.

Table 1. Major options of the IVth and Vth French plans

I. Use of Gross Domestic Product



	1961 (end of IIIrd plan)	Major options 1962-65 plan	1965 (end of IVth plan) (actual)	Major options 1966-70 plan	1970 (end of Vth plan) (targets)
(a) Private consumption	64.6%	+22%	63.6%	+24-25%	62.5%
(b) Government expenditure	13.5%	+22%	13.4%	+36-37%	14.5%
(c) Gross investments	20.4%	+30%	22.0%	+32-33%	23.0%
(d) Export/import balance		+1.5%		+1.0%	0%
Total gross domestic product (constant prices)	309		384		490
Aggregate growth index	100	(+24%)	124.1	(+27-28%)	157
Annual growth		+5.5%		+5%	

II. Use of the growth to finance education (public and private)

	1961	1965	1970
1. As percentage of gross domestic product			
Current expenditure 1/	2.94%	3.53%	4.70%
Capital expenditure 2/	0.62%	0.83%	1.10%
Total	3.56%	4.36%	5.80%
2. In absolute value (francs)	11,000 million	16,700 million	28,000 million

1/ Included in Government expenditure.

2/ Included in Gross investments.

PART II

THE FUNCTIONS AND ORGANISATION OF THE PLANNING SERVICES OF THE MINISTRY OF EDUCATION AND THEIR RELATIONS WITH THE CENTRAL PLANNING AGENCIES

As already indicated, the development aims of the French education system have been studied since the Second Plan in the context of planning work as a whole and integrated in the Planning Act passed by Parliament. The Office of the Commissioner-General for the Plan, however, publishes, in addition to the Planning Act, the much more detailed report of the School and University Commission.

A. THE RESPECTIVE COMPETENCE OF THE OFFICE OF THE COMMISSIONER-GENERAL FOR THE PLAN AND THE MINISTRY OF EDUCATION

(a) The content of the School and University Plan and the multiple levels and types of decision affecting education

The detailed report published by the Office of the Commissioner-General on the occasion of the Fifth Plan included:

1. The quantitative targets for the development of the education system, at all levels, during the period of the Plan. These targets are set in the light, as far as possible, of all the factors which influence the development of the system:
   - population,
   - social demand,
   - manpower requirements,
   - structural reform of the education system (organisation and length of studies, etc.)
   - certain qualitative improvements (reduction of the pupil/teacher ratio, etc...).
2. The material investments necessary to achieve these targets (number of new places to be created); the volume of investment finance is established on the basis of standardised unit costs;
3. A study of the administrative, financial and technical measures necessary to implement the investments as early and as cheaply as possible;
4. A study of the desirable trend of the teaching body, and of the possibilities of ensuring the corresponding recruitment, with recommendations for the measures to be taken in case of difficulty;
5. Various studies on social measures for student aid, school transport, etc., accompanied by conclusions for action.
6. A programme of studies and research which it would be desirable to undertake in preparation for future Plans. The reading of this document may seem to leave certain major problems still in the dark, such as:
   - the trend of the content of studies and teaching methods,
   - the trend of current expenses and costs, etc.

Before passing judgment on this point, it is as well to recall that the process of elaborating and executing the plan calls for a series of decisions which are very different:

- in their level: from Parliament and the Council of Ministers to the Councils of local authorities and education establishments;
- in their nature: some affecting major financial options, others affecting increasingly specific quantitative or qualitative targets.

It is neither possible nor desirable to include all types of decision concerned in the same document 1/; at the level of the Office of the Commissioner-General only over-all decisions are studied and formulated; they include, moreover, usually by implication, a whole series of other decisions, particularly of a qualitative nature, taken at other levels, and especially within the Ministry of Education itself. For example, the reform of curricula and timetables, methods of teaching mathematics, physics, etc., are important problems, but problems which cannot be tackled within the Office of the Commissioner-General; the various consequences of the decisions of the Ministry of Education in the educational field are taken into account subsequently, in discussing building standards, teacher requirements, etc.

The content of the report on the plan may, of course, evolve according to the division of competence established between the Office of the Commissioner-General and the Ministry of Education.

In any event, it might be thought that the absence of any planning of current expenditure forms a serious gap in the report on the education plan. It is true that the projections of the national accounts which form the basis of the economic plan, and the tables relating to general equilibria, include the trend of current expenditure on education, but the corresponding studies are made outside the Planning Commission in an Inter-Ministerial Working Party and their results are not published 2/. It will, however, be noted that the working out of a more thorough planning of current expenditure is a problem of the general policy of planning public services, which extends beyond the scope of education and cannot be settled from this point of view alone. It may be hoped that the new work on the rationalisation of budget choices (RCB) now being done in the Directorate of Forecasting may lead to progress in this field.

(b) The predominance of the office of the Commissioner-General for the Plan in the economic and financial aspects of the education plan

As the custodian of the internal consistency of the Plan and of financial equilibrium, the Office of the Commissioner-General has competence to study and propose to the political authorities the major options of the Plan (the option between investment and consumption, productive investments,

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1/ This practice is not followed by any country which has a planning system.

2/ These studies are, moreover, in their present state, still too summary; they provide a reliable order of magnitude for the trend of this expenditure, but not a helpful instrument for selecting the options of the education plan.

collective investments, housing, the distribution of collective investments, etc.). Thanks to the over-all view of the possible economic future given by the 'reference outline' 1/ and its successive variants, the Office of the Commissioner-General, subject to the decisions of the political authorities, thus sets the pattern of the financial effort which seems necessary for education and training in the context of the Plan.

The level of this expenditure is not fixed at one go, but, like the rest of the Plan, by successive approximations, in proportion as the various constituents of the Plan can be specified:

- in the first phase of the establishment of the reference outline (end 1963-beginning 1964 for the Fifth Plan), the technicians of the Office of the Commissioner-General, INSEE and the Directorate of Forecasting of the Ministry of Finance, act practically on their own, but on the basis of general instructions issued by the government; nevertheless, in view of the capital importance of the figures in the reference outline, they associate the Rapporteurs-General of certain Commissions with their work, even at this stage; this is the case with the Education Plan:
- during the phase of setting the major targets of the Plan (July 1964), light is thrown on the proposals of the Commissioner-General by a preliminary opinion, supported by figures, of the School and University Commission at that stage, and although this is still an internal procedure of the Office of the Commissioner-General, the Ministry of Education contributes to the preparation of this preliminary opinion through its numerous representatives on the Commission, and, in particular, by the studies which it submits to the Commission;
- in the phase of the allocation (end 1964) of the block vote for capital equipment appropriations - which, in practice, means the number of new places to be created, which will result in the appropriations for running costs - the Commissioner-General initiates proposals, and it is for the Minister of Education, if appropriate, to challenge them with the Prime Minister for his arbitration.

Experience shows that, in the event of arbitration, the figures prepared in the Office of the Commissioner-General, and his staff on the one hand and between the Chairman and the Rapporteur-General of the Commission, on the other, are fairly generally accepted by the Prime Minister, whose decisions are obviously subject to the same constraints, from the point of view of the consistency of the Plan, as the proposals of the Commissioner-General, This indicates the importance of the outline sketch and, in general, the predominant role of the Office of the Commissioner-General in connection with financing.

This perfectly natural predominance of economists in decisions affecting the financing of education has not been incompatible with a large expansion of capital expenditure on schools and universities, and the inseparable current expenditure:

1/ Preliminary draft of the Plan established at the beginning of the preparatory work by the central planning services, especially through the medium of projections of the national accounts.

- in the course of the Fourth Plan (1962-1965) in the context of an over-all growth rate of collective investments of 50 per cent over 1961 (cf. Table No. 1), the Ministry of Education benefited from super-priority (growth rate = 90 per cent); in this way, the investment expenditure of the Ministry of Education should have gone up, under the Plan, from 0.62 per cent of the Gross National Product (GNP) in 1961 to about 1 per cent of the GNP in 1965 1/;
- in the course of the Fifth Plan (1966-1970) owing to the relatively high level reached by school and university investments in 1965, they were given no special priority, but they will again increase between 1965 and 1970 at the average rate for public utility services, i.e. 54 per cent to 55 per cent (see Table No. 1), a rate still well above the forecast growth of the GNP (27 per cent to 28 per cent); in this way, the amount of school and university investments should rise to about 1.1 per cent to 1.2 per cent of GNP in 1970, that is to say, the highest level of all industrialised countries.

(c) The educational competence of the Ministry of Education

In any event, the Ministry of Education remains the 'technical' agency responsible for the national education policy and, in principle, retains full authority, within the context of Government and Parliamentary decisions, in such fields as:

- structural reforms of the education system at all levels;
- fixing curricula and timetables,
- organisation of examinations, etc.

These decisions, however, must first be submitted to the education councils 2/ and to the Higher Council of National Education 3/.

Furthermore, it is the Ministry which is responsible for the execution of the education plan (creation of new establishments, recruitment and training of the teaching staff, etc.), though under the supervision of the Commissioner-General for the Plan, especially on the occasion of the elaboration of successive budgets.

(d) The inter-relations between the economic and financial aspects and the educational aspects of the Education Plan

While it is possible, in theory, to distinguish the economic and financial responsibilities from the specifically educational responsibilities in establishing the education plan, there are in fact very close inter-relations between the different aspects of the plan.

1/ In fact, they scarcely exceeded 0.85 per cent owing to administrative difficulties in the use of credits.

2/ At Directorate level.

3/ A recent reform of the Higher Council of National Education has modified its membership and given a larger place to the representatives of parents and of economic activity; in particular, the Commissioner-General for the Plan becomes an ex officio member of the Council.

Functional analysis and administrative organization
of educational planning: the case of France

It might be thought that the 'education policy' proposed by the Minister of Education and accepted by the Government and Parliament, (extension of compulsory full-time schooling from 14 to 16, etc.), was binding on the Commissioner-General and the Minister of Finance and would be enough by itself to determine the level of expenditure to be included in the Plan. In practice, the example of the extension of compulsory schooling to 16 which, under the Ordinance of 6 January 1959, came into application in 1967, shows that educational reforms of any real magnitude are not feasible unless they can be financed; but, in spite of the super-priority (plus 90 per cent) given to appropriations for education under the Fifth Plan (1962-1965), it proved impossible, in the light of the preparatory work for the Fifth Plan, to set up by 1967 the whole network of first cycle secondary schools, which conditions both the general adoption of compulsory full-time schooling at the age of ten, and, in this context, the full application of the reform of the first cycle of secondary schooling 1/.

In any event, if economic and financial imperatives may lead to the phasing in time of the introduction of educational reforms, the responsibility for the educational concept of these reforms rests with the Minister of Education; this does not mean, moreover, that 'education policy' is an extraneous element of the national development plan, on the contrary, it is a key factor, both from the economic point of view (manpower training) and from the social point of view (improving the general cultural level of the population, democratisation of access to extended education, etc.); under the principle of the specialisation of competence, it is natural that responsibility for this policy, within the context of government and Parliamentary decisions, should rest with the competent technical authority, the Ministry of Education.

But, from another angle, the Commissioner-General for the Plan is concerned with the development of the education system, on all matters affecting vocational and technical education at the different levels, and everything related to manpower policy. In this field, therefore, the setting of the quantitative development targets has higherto been a responsibility of the Commissions of the Office of the Commissioner-General for the Plan, as will be seen below. Knowledge of these different targets should inform the Ministry of Education not only of the volume of the different streams of students, but of the structural reforms to be undertaken. For example, the recognition of the need for personnel with a 'short' higher training which emerged from the forecasting work (1978) of the Manpower Commission of the Office of the Commissioner-General was one of the decisive reasons for the creation of the University Institutes of Technology.

1/ The complete network of first-cycle schools can be set up only by virtue of the achievements under the Fifth Plan, that is to say, around 1972.

The 'qualitative' aspects of vocational and technical training, that is to say, reforms in training methods, are not normally discussed in the modernisation commissions, but the permanent staff of the Office of the Commissioner-General follow up these questions and are consulted when decisions are prepared.

In the last analysis, the magnitude of the changes which have been made in the French education system at the end of the nineteen-fifties and in the following decade have conferred growing importance on successive school and university plans; they will no longer be limited to defining the expansion of education in the traditional context, but will be the instrument for the application of educational reforms and, to a by no means negligible extent, the occasion for defining them more fully in the light of the concrete difficulties disclosed by the preparation of the Plan.

As in all human undertakings, it must be recognised that the real distribution of responsibilities between the Office of the Commissioner-General for the Plan and the Ministry of Education is linked, in spite of the officially established legal relationships, to the personality and working methods of the responsible chiefs concerned; the Minister and his heads of service, the Commissioner-General for the Plan, the Chairman and Rapporteur-General of the Education Commission for the Plan, etc.; in this way, within a legal context theoretically unchanged since the Second Plan, the real burden of responsibility may shift one way or the other.

B. THE DISTRIBUTION AND ARTICULATION OF TASKS IN THE ELABORATION AND EXECUTION OF THE EDUCATION PLAN (EXAMPLE OF THE FIFTH PLAN)

Figure No. 2 shows:

- first, the internal organisation of the School and University Commission of the Office of the Commissioner-General for the Plan, and that of the Ministry of Education;
- secondly, the working rel[illegible]ns established between the Commission and the various specialised s[illegible]ces of the Ministry

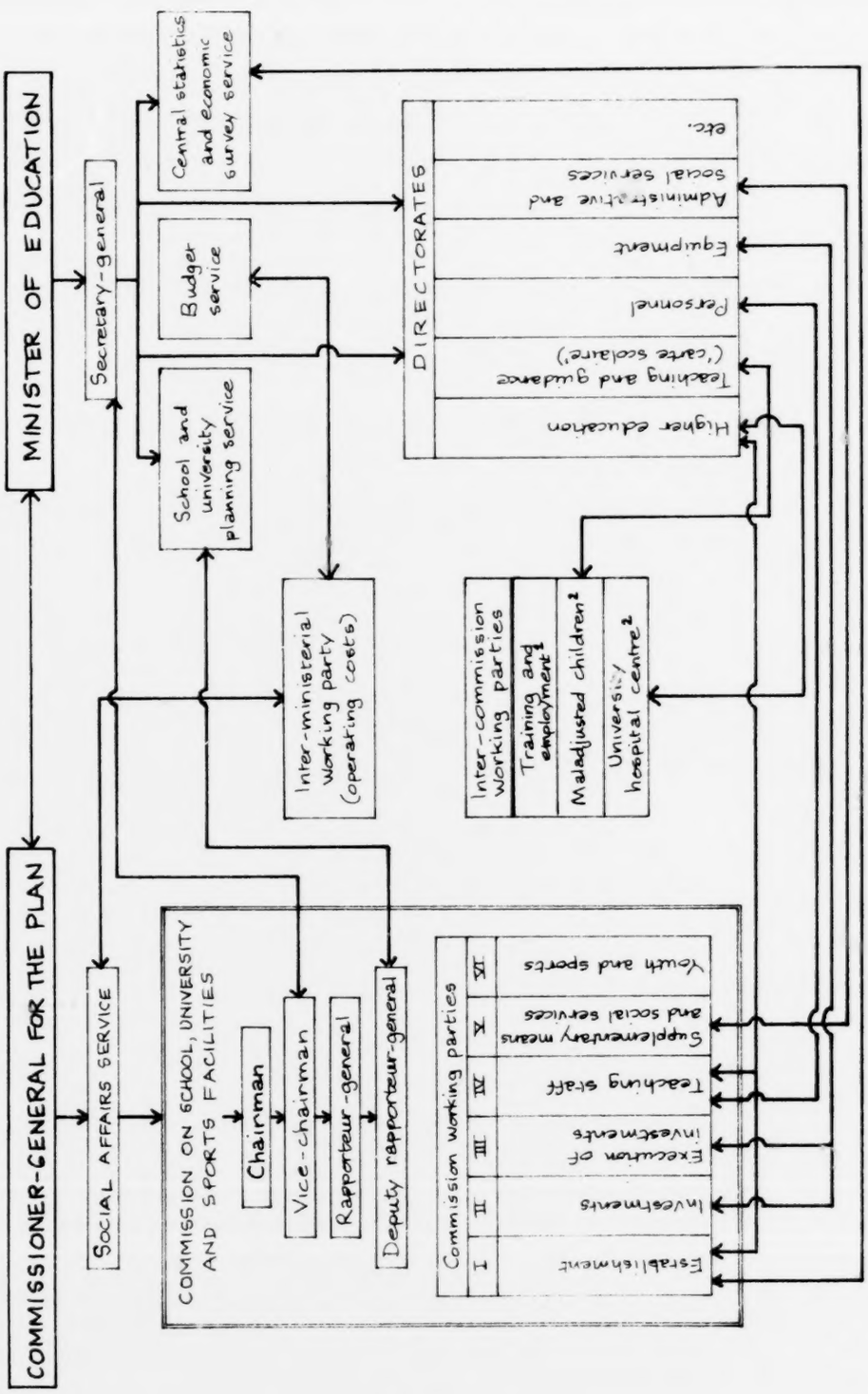
This diagram shows how the educational planning work was articulated from the administrative point of view for the Fifth Plan.

From the point of view of analysing the tasks, three major types of function can be distinguished;

- knowledge of the current system, constantly updated;
- exploration of the possible and desirable future of the education system, with a view to setting the targets for the Plan;
- execution of the Plan and supervision.

We set out below, in very summary fashion, the way in which these tasks are distributed and executed:

Figure 2. Inter-relations between the Ministry of education and the Commissioner-general for the Plan



1. Manpower commission and School and university commission.
2. School and university commission and Health facilities commission.

(a) Knowledge of the situation

Knowledge of the situation in education at the end of the current Plan, which consititutes the necessary basis for the preparation of the subsequent Plan, covers a wide variety of questions, and this task is naturally divided among a number of services.

1. Statistics on the education system (present position and trends)

   - enrolment statistics (numbers, streams, enrolment ratio, repeaters, graduates, etc.) and statistics of the teaching body (within the competence of the Central Statistics Service of the Ministry of Education);
   - statistics of material facilities (number of establishments, classes, areas, rate of occupation of premises, obsolescence rate, miscellaneous facilities, etc.) (competence of the Directorate of Equipment of the Ministry of Education).
   - statistics and analysis of expenditure and costs (Budget Service and Planning Service, Directorate of Equipment) 1/
   - studies of educational psychology, and problems of guidance; analysis of the behaviour of different social groups motivations of career choices, guidance methods, etc.., (Work assigned to specialised institutes);
   - synthesis of current educational research (Study and Research Division of the Central Statistics Service and educational services).

2. Statistics of the educational level of the population as a whole and of the working population in particular

Qualifications of total population and of the work force (Competence of INSEE and certain specialised centres or institutes).

As things stand at present, this is a sector of statistical analysis which is still not greatly developed; the general Population Censuses still provide the basic information. This source, valid for the population as a whole, is ill-adapted to the analysis of the trend of qualification of the work force: new statistical work is, however, now being undertaken in this field.

(b) Exploring the future of the education system

1. Setting quantitative targets

   - population trends: population projections; projections of potential school population (INSEE)
   - the consequences of structural reforms: establishment of projections of enrolments, and discussion (Central Statistical Service, Ministry of Education, and Planning Commission).
   - the consequences of the evolution of social demand: establishment and discussion of projections, and choice of assumptions to be adopted (Central Statistics Service, Ministry of Education and Planning Commission):

1/ As already pointed out, the work done in this sphere for current expenditure remains very summary and has not yet led to the standardization of running costs.

- the evolution of employment: establishment of medium and long-term projections, establishment of mean correlations employment/training (Manpower Commission of the Plan and specialised research services);
- the consequences of the evolution of employment on training plans in particular, on the development of second and third degree vocational and technical education;
('Employment-training' group of the Planning Commission, and National Education Commission).

2. Setting qualitative targets

- improving working conditions: teacher/pupil ratio, standards of equipment (Planning Service and educational services, Ministry of Education, Planning Commission);
- transforming the content of studies and teaching methods;
(Educational services and Councils of the Ministry of Education, in liaison with educational research centres);
- New design of education establishments in the light of changes in education (Educational services and Directorate of Equipment, Ministry of Education);
- Modernisation of management methods (0 and M Service, Ministry of Education).

3. Forecasting the trend of expenditure and costs

- trend of unit running costs (Budget and Planning Services of Ministry of Education in liaison with Ministry of Finance);
- trend of unit capital costs (Directorate of Equipment and Planning Commission);
- trend of expenditure and discussion of quantitative and qualitative variants (Planning Commission).

4. Arbitration between possible variants:

(Planning Commission and political authorities).

5. Setting the final targets of the Plan after political arbitration

(Planning Service, Ministry of Education and Planning Commission).

Note: It will be noted that all this work calls for very close cooperation between the Office of the Commissioner-General for the Plan and its vertical specialised Commission on the one hand, and the Ministry of Education and all its services, on the other.

(c) Execution of the Plan

The execution of the school and university plan, in its different phases, and from its different aspects, is essentially a matter for the Ministry of Education, in liaison with the Office of the Commissioner-General for the Plan and with the Ministry of Finance.

1. Elaboration and discussion of the annual progress of the budget:

Budget and Planning Services, Ministry of Education,
Commissioner-General for the Plan and Ministry of Finance.

2. Siting of new establishments

   National and Regional School Mapping and Planning Service, Ministry of Education, in liaison with the Territorial Development Services.

3. Laying-down of teaching programmes 1/

   School mapping service acting in liaison, for professional and technical establishments, with the regional and national levels of technical education.

4. Provision of Facilities

   (Directorate of Equipment, Ministry of Education, and regional and local services of the Ministry of Education).

5. Recruitment and training of teachers

   (Educational services of the Ministry of Education and Regional and Departmental Centres).

6. Introduction of educational reforms

   (Educational services of the Ministry of Education, in liaison with Regional services and education establishments).

7. Annual supervision of the execution of the Plan

   (Planning Service, Planning Commission and Parliament).

GENERAL CONCLUSION

(a) The fundamental value of the French planning set-up: an institutionalised process for reflection and decision-making at national level

The characteristic and essential value of the French planning set-up is that it affords the framework for a permanent decision-making process which, from one Five-Year Plan to the next, determines or orients, after wide discussion, the general evolution of the education system in France.

The process of decision associates the general social, economic and financial competences of the Commissioner-General for the Plan with the technical competences of the Ministry of Education in accordance with a fairly logical division of responsibilities, the value of which has been proved by experience.

Naturally, this planning organisation can be criticised for discharging some of the functions described above 2/ no doubt somewhat imperfectly; its imperfections, which are inherent in the very nature of such an undertaking as soon as it comes to practical application instead of

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1/ By 'teaching programmes' is meant the finalising of instructional programmes (total number of pupils, breakdown by specialisations, etc.) for each of the establishments to be created or developed during the planning period. By means of these 'teaching programmes' the overall targets, by levels and types of training, of the Planning Commission are broken down among the various specializations taught.

2/ Especially experimentation and the dissemination of information.

theoretical conception, should not make us overlook its fundamental merit: too many so-called draft plans or commission reports have no greater value than that of a study of documentation with no immediate consequence from the point of view of political decision for us not to recognise the value of a set-up which necessarily leads from reflection to political decision and to execution.

Having reached this stage, however, French educational planning is in duty bound to evolve in various directions; we cannot consider them all 1/ but we will stress the most important one.

(b) The improved coordination of the quantitative and qualitative aspects of the Plan

Historically, the first French school and university plans worked out in the specialised Commission of the Office of the Commissioner-General for the Plan concentrated essentially on the quantitative aspects of the development of the education system; as already indicated, the work of the Commissioner-General's Office took account of the educational evolution defined by the services and councils of the Ministry of Education, but did not discuss it.

This division of functions is, to a large extent, logical, and meets a practical need, but it nevertheless raises the delicate question of the trend of relations between quantity and quality already referred to.

In the past, owing to the quantitative priorities resulting from the extraordinary French 'school explosion' (see Table No. 2), the Plan was quite naturally both the driving force and the instrument of the quantitative expansion of the system; at the same time, the Plan was also the instrument for implementing major structural reforms, such as the creation of University Hospital Centres, the structural reform of secondary education establishments, the creation of University Institutes of Technology, etc.: nevertheless, the Plan has so far given very little place to what is nowadays called the 'educational renovation'.

Owing to the relative decline in the quantitative expansion of the French education system during the Sixth Plan (1971-1975) and the solution of certain types of problem which were formerly of major importance, it is highly probable that the Ministry of Education will in future be able to concentrate its attention more closely on the integration of 'educational renovation' into the Plan.

It must nevertheless be recognised that the integration of educational innovations as a major element in future plans, calls for firm determination at the top level (Minister, Secretary-General, etc..) and cannot flow from the initiative of the Planning Commission itself. It will be noted that the preliminary report of a joint Working Party of the Office of the Commissioner-General

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1/ The question of decentralisation of planning to regional level and establishment level is also a very important subject for reflection.

Table 2. Trend of school and university enrolments, 1951-1967 (a)
(in thousands of full-time pupils and students)

Establishments (b)	1951-1952			1961-1962			Index 1961 (1951=100)	1965-1966			Index 1965 (1951=100)	1967-1968			Index 1967 (1951=100)
A. PRIMARY	Public	Private	Total	Public	Private	Total		Public	Private	Total		Public	Private	Total	
Nursery and Infant Schools	1 000	221	1 221	1 221	178	1 399	111	1 507	271	1 778	115	1 688	302	1 990	163
Elementary schools and special schools	3 336	801	4 137	4 955	947	5 902	112	4 826	823	5 649	136	4 731	764	5 495(1)	133
Sub-total	4 336	1 022	5 358	6 176	1 125	7 301	136	6 333	1 094	7 427	138	6 419	1 066	7 485	140
B. SECONDARY															
1. C. E. S. and C. E. G.	218	60	278	628	141	769	275	962	183	1 145	410	1 204	204	1 408	506
2. Classical and modern Lycées	348	186	534	812	317	1 130	212	1 000	372	1 372	257	988	395	1 383	259
3. Technical Lycees	101	35	136	196	60	256	188	196	49	245	180	195(2)	49	244	180(3)
Total 2 + 3	449	221	670	1 008	377	1 386	210	1 196	421	1 617	241	1 183	444	1 627	243
4. Technical Colleges	148	70	216	219	107	325	149	322	196	518	235	381	191	572	264
5. Teacher training	15	-	15	29	-	29	193	32	-	32	210	34	-	34	227
Sub-total	830	351	1 181	1 884	625	2 509	212	2 512	800	3 312	280	2 802	839	3 641	308
C. HIGHER															
1. Public universities and private faculties	137	4	141	246	7	253	179	413	12	425	300	499	13	512	363
2. Other higher education establishments (c)	15	6	21	19	11	30	140	28	13	41	195	30	14	44	210
Sub-total	152	10	162	265	18	283	174	441	25	466	287	529	27	556	343
GRAND TOTAL	5 318	1 383	6 701	8 325	1 768	10 093	151	9 286	1 929	11 205	167	9 750	1 932	11 682	174

(a) Sources: Ministry of Education statistics

(b) The names of establishments are those used since the 1959 reforms.

(c) Not including students enrolled elsewhere in public Faculties.

(1) Of whom about 525, 000 in primary terminal classes and 160, 000 in special classes for maladjusted children.

(2) Not including 2nd. AB (43, 000 pupils) leading both to Baccalaureat B and technical Baccalaureat, which are included in classical and modern.

(3) The apparent stability of Technical Lycee enrolments since 1961 is explained by the structural reforms.

and the Ministry of Education 1/ certainly seems to orient the preparation of the Sixth Plan in this direction. Only the future will tell whether, from the administrative point of view, it will be possible to integrate in the next report on the Sixth Plan real elements of decision in the matter of educational renovation.

1/ Report of the Working Parties known as 'Fresque de l'Education', of February, 1969, followed by the constitution, on 21 March, 1969 of twenty specialised working parties, mostly on educational problems (Official Bulletin of the Ministry of Education, No. 23, 5th June, 1969).

SOME REFLECTIONS ON THE ADMINISTRATIVE ASPECTS OF EDUCATIONAL PLANNING IN INDIA

by Veda Prakasha

One of the persisting criticisms of educational planning in India is that it has been stronger on 'formulation' than on 'implementation'. The Government of India Resolution of 14 July 1964, appointing the last Education Commission (1964-1966) under the Chairmanship of Dr. D.S. Kothari, for instance, draws attention to the fact that 'a wide and distressing gulf continues to persist between thought and action ...' 1/

This paper is concerned with two major criticisms of Indian educational planning. One is that the educational administrator has on the whole neglected the qualitative improvement of education in favour of its expansion. The other is that both planning and implementation in the field of education in India have been highly centralized. Its only other limited interest is briefly to suggest a hypothesis for the slowness of change both in the structure and functioning of educational administration in the country, despite frequent identification of the self-same major problems in this area.

First of all, it is necessary to say a few words about the general context of educational planning in India. Education in India is essentially a State subject, though certain matters such as 'co-ordination and determination of standards in institutions for higher education or research and scientific and technical institutions' are a Central responsibility. This means that each of the seventeen States is free to develop an educational system of its own. This explains the great diversity of educational structures, instructional media, curriculum content and examination practices in the country. Universities and other institutions of higher learning are generally autonomous and function independently both of the Centre and the State Governments. At present, there are seventy-two universities and some 3,000 colleges imparting university level education. Enrolments in the third level institutions are in the neighbourhood of two million and the number of teachers more than 100,000.

1/ Education Commission (1964-1966) Report, p. 591.

Apart from State Governments and the universities, local authorities also have major educational responsibilities. Municipal authorities and Panchayati Raj 1/ institutions are associated with the management of primary and sometimes secondary education in several parts of the country.

Equally important is the role of voluntary or private organizations in the management of education. The following table gives information regarding the extent of private enterprise in education. The figures relate to 1960-1961 and are a little dated but the picture substantially remains the same.

Table 1. Percentage of non-governmental educational institutions to total number of educational institutions (1960-1961)

Stage or sector		Percentage
1.	Pre-primary	70.9
2.	Lower primary	22.2
3.	Higher primary	27.1
4.	Secondary	69.2
5.	Vocational schools	57.4
6.	Special schools	79.0
7.	Institutions for higher (general) education	78.8
8.	Colleges for professional education	49.8
9.	Colleges for special education	74.9
Total for all sectors		33.2

Source: Education Commission Report, p.446.

Origin of educational planning

Although educational planning in the formal sense of the term came into being with the commencement of the First Five-Year Plan in 1951, planning activity in education had started somewhat earlier. The Indian National Congress, for instance, had set up in 1938 a National Planning Committee for drawing up a national plan for social and economic development under the Chairmanship of Pandit Jawaharlal Nehru. The National Committee had appointed two committees - one for general education and the other for technical education and development of research. Unfortunately, the outbreak of the Second World War in 1939 led to the arrests of many national leaders and as such the work of the Committee could not make much headway.

1/ The Panchayati Raj Institutions are agencies of Government and administration at the local level.

On the Government side, the task of preparing the first comprehensive plan of education in the country was undertaken by the Central Advisory Board of Education, the highest consultative body for education at the national level. Between 1938 and 1943 the Board appointed a number of committees to report and make recommendations on different aspects of education. The analyses and recommendations of these committees were used towards the preparation of a comprehensive plan of educational development for the country in 1944. This document, popularly known as the 'Sargent Report' - after the name of the then Education Commissioner to the Government of India, Sir John Sargent - covers a period of forty years, that is from 1945 to 1985. Although, because of its many limitations, the plan was never accepted for implementation, it is widely recognized to be in many ways the most well-knit and comprehensive educational plan prepared so far.

The First Plan was inaugurated in 1951 and covered the period 1951 to 1955. The Plan lacked unity and did not very much reflect any clear order of priorities. It was largely an assortment of the post-war educational programmes of different states at that time.

The Second Plan covered the period 1956 to 1960. The Plan was designed among other things to reach certain targets of expansion of educational facilities at different levels, and paid some attention to the question of improving the salary scales of teachers. Here again, the governing factor was more the availability of resources rather than the achievement of predetermined objectives.

The Third Plan covered the period 1961 to 1965 and tried to provide for needs both of expansion as well as of consolidation. As usual the resources constraint again turned out to be a major limiting factor.

On account of a number of serious economic and financial difficulties, the launching of the Fourth Plan could not take place until after March 1969. During the three intervening years, that is, 1966, 1967, and 1968, planning at the Centre and in the States was in the form of annual plans only.

Plan achievements

One important achievement of educational planning during the last two decades or so has been the unprecedented expansion of education at all levels. The total enrolment at all stages of education in 1950-1951 was 24 million; in 1965-1966 the figure stood at 70 million. This gives an average annual growth rate of 7.4 per cent. The following table gives some of the details of this growth:

Table 2. Growth of enrolment (1951-1965) 1/ 2/ (in thousands)

Sl. No.	Stage	Years 1950-1951	1965-1966
1.	Pre-primary	5 177 (18.3)	11 773 (26.7)
2.	Lower primary (I-IV)	13 651 (37.8)	37 090 (69.2)
3.	Higher primary (V-VII)	3 228 (13.0)	12 549 (35.6)
4.	Lower secondary (VIII-X)		
	(a) General	1 461	5 990
	(b) Vocational	46	137
	Total	1 507 (6.5)	6 127 (19.1)
5.	Higher secondary (XI-XII)		
	(a) General	157	834
	(b) Vocational	125	564
	Total	282 (1.9)	1 398 (7.0)
6.	Undergraduate		
	(a) General	191	759
	(b) Professional	50	227
	Total	241 (1.2)	986 (3.6)
7.	Posigraduate		
	(General and professional)	32 (0.1)	108 (0.4)

Source: Report of the Education Commission (1964-1966), p. 589

1/ Totals do not tally because of rounding.

2/ The figures in parenthesis indicate the percentages to the population in corresponding age groups.

A most heartening feature of this expansion has been the growth of girls' education. Table 3 sets out the main facts.

Table 3. Education of girls (1950-1965)

	1950-1951	1965-1966
1. Enrolment of girls in classes I-V		
(1) Total enrolment (in 000's)	5 385	18 145
(2) Number of girls for every 100 boys enrolled	39	55
2. Enrolment of girls in classes VI-VIII		
(1) Total enrolment (in 000's)	534	2 839
(2) Number of girls for every 100 boys enrolled	21	35
3. Enrolment of girls in classes IX-XI		
(1) Total enrolment (in 000's)	163	1 069
(2) Number of girls for every 100 boys enrolled	15	26
4. Enrolment of girls at the university stage (general education)		
(1) Total enrolment (in 000's)	40	271
(2) Number of girls for every 100 boys enrolled	14	24
5. Enrolment of girls in vocational courses (school standard)		
(1) Total enrolment (in 000's)	4 1	120
(2) Number of girls for every 100 boys enrolled	28	23
6. Enrolment of girls in professional courses (collegiate standard)		
(1) Total enrolment (in 000's)	5	50
(2) Number of girls for every 100 boys enrolled	5	14

Source: Education Commission Report, p. 136.

The rate of expansion of education of girls has actually been faster than that of boys and, as revealed by the figures, the gap between them and the boys is steadily closing.

This, however, does not mean that the people of India have over-educated themselves! Of the total adult population, 70 per cent or so is still illiterate. The Constitutional Directive enjoining upon the State the responsibility to provide free and compulsory education for all children up to the age of 14 is still a distant goal and according to the forecast made by the Kothari Commission may not be actually reached for another fifteen years or more. At the secondary stage (post-14) not more than 18 to 19 per cent of the children in the relevant age

group are estimated to be enrolled as yet. At the university stage the proportion is only about 2.5 to 3 per cent against the estimated proportion of 5 to 10 per cent in countries such as the United Kingdom and France and of over 40 per cent in the U.S.A. However, in aggregate terms the Indian system of education has already become the biggest among all the countries in membership of the United Nations. The total enrolments are of the order of 70 million; and the number of institutions and teachers of the order of 500,000 and over 2 million respectively.

Equally phenomenal has been the increase in educational expenditure. In 1946-1947, the total educational expenditure in British India (i.e. excluding Indian States, for which comparable data are not available) was Rs. 577 million, that is, an expenditure of about Rs. 1.8 per person. At the end of the Third Plan period (1961-1965), the total expenditure on education was estimated at Rs. 6,000 million, or approximately Rs. 12 per person (at current prices). This means a cumulative increase of 11.7 per cent' The total educational expenditure was 1.2 per cent of the national income in 1951. It rose to 1.9 per cent at the end of the First Plan, 2.4 per cent at the end of the Second and 2.9 per cent at the end of the Third. It is interesting to note that the rate of growth of the educational expenditure in the first three Plans is 2.2 times the rate of growth of national income (at current prices).

However, the proportion of national income devoted to education in this country is still small as compared to the proportion in the advanced countries. For instance, Japan, U.S.A., USSR, are spending considerably more than 6 per cent of their GNP on education, which is twice as much as the proportion spent in India. But it should not be forgotten that in countries with a low level of income the disposable surplus is exceedingly small, and as such the same level of expenditure in poor countries signifies a much greater effort to promote education than in the more affluent economies.

Has 'quality' been neglected?

With this record of educational development as the background the question whether or not the implementation of educational plans in the country has been at least reasonably efficient and satisfactory is now ripe for consideration.

If a critical student of the Indian economy were to pronounce a judgment on the health and behaviour of the Indian economy since 1951 he would inescapably have to make a study of the actual annual growth rates against those targeted. It is only such comparison over a number of years that has revealed a continuing gap between promise and performance. For instance, in the Second Plan, the national income increased by 3.7 per cent against the Plan target of 5 per cent. In the first three years of the Third Plan the increase was only 3.1 per cent against a target of 5.4 per cent. Much of the criticism against the formulation and implementation of economic planning in this country derives essentially from this gap between the 'target' and the reality, the latter always falling short of the former. Let us now employ the same methodology in judging the performance of education.

Administrative aspects of educational planning in India

Some statistical data concerning the growth of education since 1950 were presented in Table 2. Let us look again at the growth of education since 1960-1961. The enrolment in classes I-V increased from 35 million in 1960-1961 to 56 million in 1968-1969; in classes VI-VIII from 7 million to 13 million; in classes IX-XI from 3 million to about 7 million; and at the university stage (for arts, science and commerce faculties) from 0.74 million to 1.69 million. The admission capacity in engineering and technological institutions increased from 14,000 to 25,000 at the degree level and from 26,000 to 48,600 at the diploma level.

It is only in the case of the provision of compulsory free education that performance has not been so good. Even here, however, it has been estimated that by 1968-1969, 63 per cent of the children in the age group 6 to 14 were at school. Perhaps the only other major sector in which performance has been extremely disappointing is that of adult education. A careful study of the financial provisions for and physical targets of adult education in the Five-Year Plans of different States will show, however, that due to various difficulties, particularly social and economic as revealed by field experience, it has not been possible to accord any high priority to this particular programme in educational planning so far. Considering the picture as a whole, there is no doubt that as compared to that of economic planning, the record of education has been distinctly impressive. Why should not this be an occasion, therefore, to congratulate the educational administrator?

It will perhaps be promptly replied that this growth of education does not justify any special bouquets to the educational administrator because much of the present expansion was inevitable and would have taken place in any case, planning or no planning. The demographic pressures, the upsurge of democracy, the promises made by different political parties during the national struggle for independence, the claims of the under-privileged sections of the community for social and economic justice and the global situation as a whole have all been powerfully on the side of expansion.

But in that case was not planning really redundant? Presuming that it was, why should the educational administrator be blamed, even partly, for what has happened?

Here attention is likely to be drawn to the fact that such rapid expansion in enrolments has put a severe strain on the physical facilities and teaching personnel. In such a situation, th administrator's preoccupation should have been with quality. What actually happened, on the other hand, was that in many State Plans of education there was hardly any recognition of the importance of quality programmes, such as improvement of salary scales and service conditions of teachers; provision of adequate buildings and school equipment; improvement of school supervision; and development of better curricula, textbooks, reading materials and teaching techniques etc. In others, funds meant for these or similar quality programmes were freely diverted to meet the pressures for expansion. This should have been effectively prevented. In other words, if the educational administrator had not forgotten his duty by

quality, standards would not have caved in the way they actually have. Attrition rates at all stages, particularly at the elementary stage, would not have been so high as at present; failure rates in different public and university examinations would have been lower and on the whole the educational situation might have been more cheerful.

A basic premise on which the present criticism of educational administration rests is that, as a result of its recent growth the quality of education has declined sharply. Is the premise a valid one?

The Kothari Commission has gone on record to say that the number of educational and research institutions doing work of a high standard is definitely larger today than ever before in the history of this country. Similarly, the number of able and promising students at all stages today is larger than ever before. True, the presence of an extremely large number of first generation learners in schools and other institutions in the country temporarily has put some strain on standards, but this cannot by itself be taken to mean that therefore the over-all standards have come down significantly! In the absence of scientific evidence it is difficult to settle this controversy one way or the other.

However, it must be admitted that standards of research and training in Indian institutions are generally not accorded any high recognition in the advanced countries. But when were they? While collecting evidence on standards the Radhakrishnan Commission (1949) had occasion to record this:

> 'Many of our witnesses have expressed the opinion that the average standards of our university teaching and examinations are low and one principal of a degree college maintained that an average graduate of an Indian university was not very much superior to a matriculate of a British university'. 1/

Essentially, the same view has been taken by the Kothari Commission:

> 'Our universities do a good deal of work which really belongs to the secondary school and the latter in its turn does a good deal of work of the primary schools'. 2/

The fact of the matter is that the term quality as commonly used in educational discussions and writings is a vague one and means different things to different people. In any meaningful sense the term 'quality of education' must refer to the degree to which it (education) achieves the basic educational objectives. If a scientific answer has to be found to the question whether or not the recent expansion of education has resulted in the lowering of its quality, it is first necessary to define educational objectives, then to measure the extent to which education is actually achieving them and finally to compare this extent with the extent of achievement in the pre-plan period.

1/ Report of the University Education Commission (December 1948 - August 1949), Vol. I, p. 84.

2/ Education Commission Report, p. 41.

Concerning quality-oriented programmes, it is only fair to state that consistently with the resources position and urgent demands for expansion, due regard has invariably been given to their inclusion in many of the State Plans since 1951. The quality plea is no stranger to Indian education. In fact, one of the unique merits of the Sargent Plan was that it was a quality plan through and through. But as was mentioned earlier, the Plan was considered to be uninspiring and impracticable and was never accepted for implementation. As for diversion of funds from quality to expansion in certain cases, it is a moot point whether responsibility here belongs to the administrator or to the political decision-maker.

But let us assume for the sake of argument that the quality of education has actually gone down in recent years. In what material ways would the present situation have been different if the quality of education had not deteriorated or if it had actually gone up instead?

Perhaps one of the first things to be mentioned will be that the present wastage and stagnation rates so characteristic of the early stages of education would have diminished considerably. But apart from other consequences, does this not mean that in that case numbers at the lower levels would have exerted an even stronger pressure at the secondary and other levels? This would have resulted in even higher enrolments in secondary schools and colleges and possibly in certain professional and vocational types of institutions as well.

Probably another consequence would have been that failure rates in different public examinations would have come down and the proportions of those qualifying in the first and second divisions 1/ gone up. This means that in that case the number of graduates at different varieties would have been even larger than at present and that the average performance of graduates of different kinds would have been distinctly superior to their present performance.

But would not, in the present social and economic circumstances of the country, such a situation have been even more unfortunate? Considering the growing unemployment among school and university graduates, which in recent years has surged forward to engulf even engineers and technicians, would not such a situation be altogether far more frustrating individually, and far more explosive socially and politically?

It might be argued that a better quality of education would have enabled school and college graduates not to seek or wait for employment but to create it. This is mere wishful thinking. Nowhere and at no time in its entire history has the record of education been very convincing in this respect. In the main, education's record has always been one of preparation for employment and not one of its creation.

1/ The term 'Division' is commonly used in India to categorize successful performance in the public or university examinations. For placement in the First Division a student must secure 60 per cent of the total marks or more. For Second Division he must secure at least 45 per cent. Successful candidates securing less than 45 per cent are usually placed in the Third Division.

One thing is clear. The charge that educational planning and administration have neglected quality cannot be taken at its face value. It needs a careful study.

Is there too much centralization in educational planning?

Apart from the alleged neglect of quality, another major criticism of educational planning in this country has been its ever-increasing tendency towards centralization. The charge is that with the adoption of the technique of five-year plans and the creation of the Planning Commission, a good part of the authority to determine policies and priorities and to make resource allocations in different fields, including education, has now shifted to the Centre. The pattern of outlays and priorities set by the Centre, in conjunction with the present form of Central assistance to the States, is said to have distorted the States' own perception of their needs and priorities.

Before looking into this charge, it is important to point out that the Central Government's interest in evolving a national system of education is much older than the Five-Year Plans or even Independence. Without going too far into the history of Centre-State relations in the field of education, it should suffice to mention that the Central Advisory Board of Education (originally established in 1921, dissolved in 1923 and revived in 1935) has always interested itself in the development of a national system of education. A reference to the Sargent Plan prepared in 1944 was made earlier. In 1947, the Central Ministry of Education appointed a University Education Commission to consider and make recommendations in regard to different aspects of university education in the country. In 1952, the Ministry appointed a Secondary Education Commission to report on secondary education and make recommendations for its reorganization and qualitative improvement. The Central Government has not appointed any commission on primary or elementary education so far, but several all-India bodies appointed by it from time to time have reported and advised on elementary education, including basic education.

The last in the series of Education Commissions to be appointed by the Government of India is the Education Commission (1964-1966). The recommendations made by this Commission were carefully examined by the Government in consultation with Members of Parliament, State Ministers of Education, Vice-Chancellors of Universities, etc. and a statement on national policy on education - the first of its kind since Independence - was issued in July, 1968. The main paragraphs of the statement relate to Free and Compulsory Education, Status, Emoluments and Education of Teachers, Development of Languages, Equalization of Educational Opportunity, Identification of Talent, Work-experience and National Service, Science Education and Research, Education for Agriculture and Industry, Production of Books, Examinations, Secondary Education, University Education, Part-time Education and Correspondence Courses, Spread of Literacy and Adult Education, Games and Sports, Education of Minorities, and the Educational Structure, in that order.

This continuing interest of the Centre in matters educational apart, it is a fact that with the establishment of the Planning Commission and the formulation and implementation of five-year plans the financial dependence of the States on the Centre has increased considerably and reinforced the growing trend towards centralism. In many ways, however, such a development was inevitable. As pointed out by the Administrative Reforms Commission in one of its reports '... it (planning) needs to be centralized to ensure co-ordination, proper allocation of resources and full attention to national needs and objectives'. 1/ Such trends towards centralization, particularly in education, have taken place in other democratic countries also and can by no means be said to have been entirely unforeseeable.

It would be pertinent to mention at this stage that the virtual State monopoly of education as sanctioned by the Constitution also has its critics. The failure of the country to develop a national system of education even after more than twenty years of independence is often attributed to the fact that education is constitutionally a State subject and that the Centre is not in a strong legal position to act. Recent experience of decentralizing the control of primary and, in some cases, of secondary education in some of the States has also not been uniformly very happy. Teachers, for instance, have been critical of the new arrangement because according to them the main interest of the Panchayat Samities in many cases lies in transferring teachers from one place to another regardless of the educational consequences of such transfers. The plea often put forward by the critics of decentralization is that if it cannot be made a Central subject, education should at least be placed on the 'Concurrent' list.

Incidentally there is one important development of which the exact significance for the future of Centre-State relations in the field of education cannot be predicted with precision as yet. The fact that the chairmanship of the Planning Commission was, from the first day of its creation in 1950, vested in the Prime Minister of the Country, and the further fact that the same political party for long was in power both at the centre and in the States, made it easy for the Government of India to sell its advice to the States in education, as indeed in all other developmental fields. That situation has changed now. While the Prime Minister continues to be the Chairman of the Planning Commission, the Congress lost its monolithic hegemony in th fourth General Elections held in 1967. At present, it has a majority of 44 only in the Lower House at the Centre (283 seats in a house of 523). The non-Congress parties are already in power in 5 of the 17 States. In some others, though in power, the Congress majority is small This political polarization or regrouping of political parties is likely to intensify further in th years ahead. Some State leaders have already started a campaign for more powers to the Stat

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1/ Administrative Reforms Commission, Machinery for Planning, Government of India, March, 1968, p.2.

and for larger uncommitted financial allocations from the Centre. 'Give us all the money that we need and then leave us alone to spend it in any way we like' seems to be a common posture some of the State leaders are striking these days.

It was mentioned above that education in India is essentially a State subject. Whether or not educational planning in India is unduly centralized will, therefore, depend largely on whether or not the preparation of State Plans of education is highly centralized. Insofar as the Centre is concerned, its direct responsibility in the strict sense of the term is limited to the preparation of a relatively small educational plan in the central sector and to the co-ordination of State education plans into the framework of some kind of a national plan. It is to the manner of preparation of State Plans, therefore, that we must now turn to examine the charge of excessive centralization.

Anyone familiar with the preparation of State education plans can be relied upon to testify that there is very little diffusion of the 'formulating' function. State Governments have generally available to them the advice of working groups set up for this purpose, but there is altogether poor communication with and feedback from the field. The defect is not peculiar to the preparation of education plans. State planning in other developmental fields also suffers from the same deficiency. Chapter 5 on Implementation in the Draft Fourth Five-Year Plan (1969-1974) contains the following paragraph:

> 'If the State plans are to succeed, their formulation in relation to physical features and resources and the institutional organizations in each area is the first requirement. Development needs not only financial resources and material inputs but personnel and the right kind of institutions. This requirement has to be worked out for each operational area. The natural corollary of beginning to plan realistically and from the bottom is to recognize that planning is not something that comes from outside or above but what each State, district, locality and community does to develop its own resources and potentialities. This emphasizes wide diffusion of initiative, decision-making and participation. It also implies a parallel shouldering of responsibilities'. 1/

Considering that this counsel had to be offered some eighteen years after the States had been engaged in the formulation and implementation of educational plans and a great variety of other plans is a sad commentary on the State planning process.

It is towards remedying the same defect of excessive centralization in the formulation of educational plans that the Kothari Commission found it necessary to recommend the establishment of a statutory board in each district, reorganization and strengthening of the District

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1/ Draft Fourth Five-Year Plan, 1969-1974, Planning Commission, Government of India, March, 1969, p. 104.

Education Office, and delegation of enhanced administrative and financial powers to the District Education Officer. The Commission also laid stress on the preparation of District Education Plans. The reasoning for district plans is simple and clear:

> 'As time passes, the district will assume still greater importance. Today, a district has an average population of about 1.5 million, an enrolment of about 2,000,000, about 7,000 teachers and a total educational expenditure of about Rs. 20 million. By 1986, the population of the average district will be about 2.5 million. Its enrolment may rise to about 500,000 with a total cadre of about 20,000 teachers and a total educational expenditure of about Rs. 125 million. All things considered, the future of development and reform lies in strengthening the district offices of the Department, making them service and supervision centres of all schools and retaining the State-level Directorates only for general co-ordination and policy-making'. 1/

The National Seminar on Educational Planning and Administration held at Srinagar in June 1967 made similar recommendations in support of district and institutional plans.

This, of course, does not mean that centralization can be entirely done away with in preparing a State educational plan. To some extent, centralization is inherent in the very concept of planning. District and institutional plans, for example, will need co-ordination into the framework of the State plan. In any case, the first inescapable step for a State Government has to be the issue of a broad outline of policy within which each District authority has to prepare its own educational programmes. For certain specific purposes, such as the provision of higher education or the provision of vocational or technical education at the second level, the planning can only take place at the State level.

But it is one thing to practice centralization to the extent inescapable and quite another to exclude severely all local and institutional authorities from participation in the planning process. Little wonder so many of the State educational plans in the past have been predominantly expenditure-oriented.

So much about the formulation of State educational plans. What about the quality of their implementation? Suppose a State education plan has been prepared after taking into consideration the district and institutional plans, would it necessarily make a difference to the effectiveness of the plan's implementation? Other things being equal it should; but we also know that other things are rarely equal. There is no choice but to have recourse to experience and enquire 'How does the functioning of decentralized educational systems compare with the functioning of centralized systems? Is it possible to deduce any definitive propositions from such a comparison?

1/ Education Commission Report, p. 261.

Without going into details and without identifying national systems of education, it is a safe bet that among highly centralized systems there are some which function efficiently and others whose functioning is far from satisfactory. The same in all likelihood will be found to be the case among decentralized systems, that is, there are decentralized systems of education which are highly efficient and others which are wasteful and unproductive.

Applying to this situation the twin principles of inductive reasoning, namely, that nothing is the cause of a phenomenon in the absence of which it nevertheless occurs, and that nothing is the cause of a phenomenon in the presence of which it nevertheless fails to occur, there is only one conclusion to be drawn. It is that there appears to be no causal connexion between efficiency and the centralization-decentralization factor. The two variables appear in the main to be independent of each other.

Perhaps one's position on the centralization versus decentralization controversy is likely to be conditioned strongly by his value orientation. In many places, decentralization has somehow come to be identified with democracy in the popular mind. The notion is common that while decentralization is good, centralization is evil. But as many political analysts have clarified, the notion is erroneous. Decentralization by a non-democratic government, for instance, is bound to be non-democratic. Decentralization by a democratic government is likely to have some democratic characteristics, but this may not be true in every case or in full measure.

Many leading political scientists are now inclined to take the view that planning in the sense of some inescapable measure of centralization is not only compatible with democracy but is today a necessary condition of its survival.

The basic issue, it seems, is not whether a system of educational planning and administration is centralized or decentralized but in the context of its particular political, social and other conditions, how to make it work or improve its efficiency. The conventional centralization versus decentralization debate has a highly academic or theoretical ring about it.

Some other criticisms of educational planning and administration

Apart from the two criticisms considered above, namely, neglect of quality and excessive centralization in educational planning and implementation, there are many others made from time to time. It is pointed out, for instance, that there is insufficient statistical information relating to student flows, manpower requirements etc. on which to base an educational plan firmly. There is hardly any systematic evaluation or feedback once a plan has been launched. Key positions in administration are held by generalist administrators and not by specialists. There are far too many committees and senior officers who spend far too much of their time in attending committee meetings. The Plan working groups both at the Centre and in the States are given to completing their deliberations in hurried two to three-hour sessions without being able to go into important details. Project preparation is conspicuous by its

absence and plans give little information regarding the inputs required - physical, material, financial and those relating to personnel - or of the time schedule in which to complete the individual projects. Financial control and management are defective. Often grants are released late in the year. Budget preparation is divorced from performance. The merit principle is recognized in principle but in practice promotions are often made on the basis of seniority. Bureaucratic inertia and red tape pose difficult problems. The system of hierarchical routing delays decision-making. On many occasions extraordinary lapses of time occur before a problem is recognized, between the time it is recognized and a decision is taken on what to do about it; and finally between the time a decision is taken and it is actually carried out. And so on.

It cannot be denied that several of these criticisms have considerable validity. Educational administrators have themselves on numerous occasions drawn attention to these and other administrative deficiencies. If the problems are so well known why cannot the necessary structural and functional changes be introduced to improve the functioning of the system? In any case, how does a system manage to survive with such serious operational deficiencies?

Before attempting answers to these two questions, it is important to remember that such problems in educational administration are not peculiar to India or to the developing nations. Each one of them can be shown to exist in the developed countries as well. Their universality suggests complexity, perhaps a certain intractability. Again, it is important to realize that the kind of problems mentioned above are not peculiar to education. In varying degrees they exist in all other developmental fields as well. At present, the Administrative Reforms Commission, set up by the Government in 1965, is engaged in the monumental task of studying public administration from all possible angles and making recommendations for its improved functioning.

These being the major administrative problems in education, why is the system of educational administration not reorganized radically?

It might be suggested that this will depend entirely on the determination of political leadership. When, for instance, political leaders do not merely talk a great deal about development but also give a high priority to it, a country can develop without a formal plan. Conversely, if there is no formal commitment to the goals and values of development on the part of the political leadership, development plans, no matter how carefully formulated, will have little chance of successful implementation. Or is the main difficulty here the administrator's lack of professional integrity? A common criticism is that even when he has serious misgivings about the practicability of an educational programme, for opportunistic reasons or for those of expediency, he often hesitates to share his doubts with his political boss. The charge may not be entirely unfounded; but the question in that case is why the political leaders and educational administrators are so lacking in their commitment to the true goals of education planning.

Sociologically speaking, an organization, administrative or of any other description, always exists in the larger society. '... not only does such an organization', as pointed out by Parsons, 'have to operate in a social environment which imposes the conditions governing the processes of disposal and procurement, it is also part of a wider social system which is the source of "meaning" legitimation, or higher level support which makes the implementation of the organization's goal possible'. 1/ In fact every organization is surrounded by a number of overlapping environments, part in harmony and part in conflict with one another. No government is wholly free to decide on any list of priorities without taking into account the prevailing reactions of its people. Its choices are circumscribed not only by the political and social ideas of the time but also by the 'weltanschauung'. Now India has a culture with pluralistic values deriving from religion, language, caste, occupation, level of income and a number of other sources and these values do not always coincide with the values of planned development. The different values and standards of the larger society impinge all the time on educational administration creating motivational conflicts in the minds of political decision-makers and administrators. It is only in terms of such interaction between the values and standards of development and those of the larger society which surrounds educational administration that the present gap between the formal commitment of the politician and the administrator to the goals of planning and their actual performance begins to acquire the possibility of an explanation.

And how does a system of administration survive with all such operational handicaps? The answer is that educational administration, to use a perceptive term suggested by Carlson, is essentially a 'domesticated' organization. Like a domesticated animal, a domesticated organization is looked after by the society and does not have to struggle for survival. It is domesticated in the sense that its survival needs are guaranteed and as such it can take things easy. Such an organization may have to compete for funds, but in a very limited sense only, because funds are not tied to the quality of performance.

In fact, educational administration partakes in this respect many of the characteristics of the schools it serves. It is principally because of their protected condition that schools are so slow in responding to change. Ten, fifteen or even more years may elapse before an invention destined to spread throughout the school system puts in its first appearance even in 5 to 10 per cent of the institutions. Total diffusion may take an entire generation! Schools and educational administrators show little awareness of the fact that the knowledge of available inventions is necessary if education is to improve and that the individuals managing and administering schools must master this knowledge.

1/ Talcott Parsons, "Some ingredients of a general theory of formal organization" in Andrew W. Haplin (ed.), Administrative theory in education, Chicago University, 1958, p.44.

Administrative aspects of educational planning in India

One suspects that schools ard school administration are altogether having a little too much protection. Public schools may tend to be even more 'domesticated' than private ones! In many urban centres in India, as perhaps in some other developing countries, public and non-government schools exist side by side. As a rule teachers often prefer to work in public schools because of a greater sense of security even when there are no material differences in the salary scales and other important service conditions. It is well known that enforcement of discipline is more difficult in government institutions than in those managed privately. Many alert parents, on the other hand, prefer to put their wards in non-government institutions. Instances are not rare where the popularity enjoyed by a government institution serving a particular community is due entirely to the non-existence of a rival private organization.

How does one change the present situation, assuming of course that it is not going to be easy? What has been India 's experience of the training and orientation of educational administrators for their new responsibilities? There is a prior question here. At present, there is a lot of in-breeding in educational administration. They are generally recruited from the ranks of teachers without any special understanding of or familiarity with problems of educational administration. How does one stop this and how can the recruitment policies be geared more purposefully to the basic goals and tasks of educational planning? What is the role of research? What kind of research, evaluation and feedback are likely to be of the greatest practical value in improving the functioning of educational administration vis-à-vis educational planning? And what precisely has been India 's experience in these areas? These are vital questions, but for reasons of time and space their consideration must be postponed to another occasion.

PLANNING AND IMPLEMENTATION OF EDUCATIONAL DEVELOPMENT WITHIN GOVERNMENTAL AND EDUCATIONAL ADMINISTRATION : UGANDA

by J. D. Chesswas

INTRODUCTION

1. In Uganda educational administration, and within it, planning and implementation of educational development, is a very complex matter both from the point of view of the formal structure and in respect of the informal contacts that 'make the system tick'. This short paper is an attempt to outline the most important aspects of each of these two interdependent elements, with a comment on the suitability or non-suitability of the structures and practices.

GOVERNMENTAL STRUCTURE

2. The diagram annexed to this paper shows the broad structure of the government, in so far as it affects education, and of the infrastructure of the immediate administration of educational institutions.

3. A series of ministries, each headed by a political minister, is responsible to a cabinet of ministers, headed by the President, which is responsible to the National Assembly. The Cabinet has appointed an education sub-committee of ministers to discuss details of educational affairs. All matters affecting development must pass to the Cabinet through a planning commission, which is mainly constructed of ministers more directly connected with development. The Minister of Education is a member of this commission. Matters not connected with development pass directly from ministries to the Cabinet.

4. All planning is co-ordinated by the Ministry of Planning and Economic Development, which is responsible for drawing up the national development plans for presentation to the Planning Commission. In addition to an economic planning section it has a manpower planning section, which is very closely involved in the over-all educational planning procedure.

Administrative aspects of educational planning

5. The Ministry of Education is divided into three main parts which are responsible to the Minister through his civil service permanent secretary.

(a) The finance and establishments division is mainly responsible for the control of central government expenditure on education and of civil service personnel employed in educational services. It also includes the higher education office, which deals with scholarships abroad and student affairs at the University of East Africa. 1/ It is headed by an under-secretary, who is responsible, inter alia, for the administrative and planning links between the Ministry and the University Council, a semi-autonomous body.

(b) The inspectorate is responsible for professional inspection and advice to schools and for advising the Minister on such matters. It has close links with the National Institute of Education, which was jointly founded by the Uganda Government and the Council of Makerere College, the Ugandan College belonging to the university.

(c) The schools and colleges division is responsible for planning and administration of first and second-level and non-university third-level education. It has two sections, for administration and planning, under a chief education officer (CEO). The planning section consists of three sub-sections under an assistant chief education officer (ACEO): (i) a senior education officer to assist with the planning process; (ii) a section for educational statistics, and (iii) an architecture and works section, which includes at the present time a senior education officer in charge of the I. D. A. secondary schools project.

6. (a) As mentioned above, the University is controlled by a semi-autonomous council and each of its constituent colleges has its own council.

(b) All second-level and non-university third-level institutions are controlled by boards of governors established under rules made by the Minister of Education.

(c) The administration of primary education is the responsibility of local and municipal authorities, which must follow the policies of the Central Government. Under rules made by the Minister of Education each authority must set up an education committee with an education officer as secretary and executive officer. Up to the present time, such education officers have been seconded central government officers, belonging to the Ministry of Education. 2/ There is also a general line of responsibility from the local to the central level through the Ministry of Regional Administration.

1/ The University consists of three colleges, one in each of the East African countries, Kenya, Tanzania and Uganda. This structure is to be changed and is at present the subject of review by an independent committee.

2/ There are management committees for primary schools responsible to the education committee, but their powers are limited and they are therefore not shown on the diagram in the annex.

PLANNING OF EDUCATIONAL DEVELOPMENT

A. The national plan

7. Planning is conducted in accordance with governmental policies, which are conveyed by ministers to the civil servants concerned in their ministries. The main bodies concerned with the planning of educational development are: (i) the manpower section of the Ministry of Planning and Economic Development; (ii) the planning section of the Ministry of Education, and (iii) the university council.

8. After consultation with ministries and departments of the East African Community which are concerned with the employment and training of personnel and with private employers, the manpower section of the Ministry of Planning and Economic Development draws up its projections of manpower needs. 1/ For this process it is advised by a manpower planning board, the main members of which are the permanent secretaries of the ministries closely concerned with manpower affairs, employers and trade unions.

9. These projections are discussed by the manpower and educational planners. In the light of these discussions, the latter consults the Chief Education Officer and his colleagues in the inspectorate and the administrative section of his ministry, especially with regard to the qualitative and administrative aspects of development. The Ministry of Regional Administration is brought into the discussion on development of primary education, which is not directly connected with the manpower plan. 2/ Some, at least, of the local and municipal education officers may also be consulted at this stage. The ACEO (planning) also consults the National Housing Corporation, a para-statal body responsible to the Ministry of Works, Labour and Housing 3/ with regard to physical accommodation and its costs. As a result of all these contacts, and many others not listed here, he draws up the development plan for primary, second-level and non-university third-level education, in close consultation with the manpower planner and referring where necessary to the officials of the Ministry of Finance dealing with recurring and capital finance for development purposes.

10. A similar procedure is carried out by the Makerere college council in consultation with the manpower planner and the under-secretary for finance and establishments of the Ministry of Education. 4/

1/ The East African Community, an organization established by the governments of Kenya, Tanzania and Uganda, which has responsibilities, inter alia, for running certain common services such as posts and telecommunications, railways and harbours, air services, etc.

2/ It does, of course, affect this plan through its demands for teachers.

3/ See annexed diagram.

4/ This is complicated by the fact that each university college serves the three countries. The new structure may alter this in the future. See footnote to paragraph 5(a).

11. Scholarships abroad are planned by the higher education office in the finance and establishments division of the Ministry of Education in consultation with the manpower planner and officials of the ministries of Finance and Foreign Affairs, which latter is interested because all offers and acceptances of foreign aid for scholarships are channelled through it.

12. Foreign aid agencies have an effect on the development plan. Most of them have ideas of their own on the policies and practices of the country and it is not unusual for them to bring pressure to bear for changes to be made before they will decide to give aid. The major aid agencies co-operate in an aid co-ordinating committee, which makes for integration of aid with planned development.

B. Individual projects

13. With a few exceptions in urban areas, individual primary school projects are not considered until the over-all plan is approved. At that point education committees of local and municipal authorities are notified by the educational planner of the total development towards which the Central Government is prepared to contribute within its plan and asked to submit detailed proposals for the approval of the Minister of Education. The key person in this procedure is the education officer of the education committee who, in consultation with the chairman, presents proposals to the committee for discussion and final approval for forwarding to the Ministry. The ACEO (planning) makes his comments and recommendations to the Minister through the CEO and permanent secretary. The Minister either approves or sends the proposals back through the same route for reconsideration by the education committee. During the whole of this procedure the Ministry of Regional Administrations is kept informed.

14. For second-level and non-university third-level institutions the allocation to individual projects is discussed by the ACEO (planning) with the CEO, the officers concerned in the administrative section of the Ministry and the inspectorate. Once the Minister has approved the list, each is discussed in detail by the ACEO (planning) with the headmaster and the school architect.

15. University projects are a matter for the college council, in consultation with the under-secretary at the Ministry and architects, and where necessary officials of the ministries of Finance and planning and Economic Development.

16. All projects involving foreign aid are discussed with prospective donors in very great detail by the officers or bodies concerned as above. Officials of the Ministry of Finance are always closely involved in these discussions.

C. Submission and decision

17. The final educational development plan is submitted to the Minister of Education and by him to the Planning Commission for consideration, alternative proposals, and eventual incorporation in the over-all national plan to be submitted through the Cabinet to the National Assembly for adoption.

IMPLEMENTATION OF EDUCATIONAL DEVELOPMENT

A. Flow of funds and physical development

Preparation of the annual budget

18. The ACEO (planning) notifies approved development to the officer of the administrative section of the Ministry who administers each sector of second and non-university third-level education. Each of these officers draws up his total recurring estimates for the next financial year, including development. He discusses them with the official concerned at the Ministry of Finance in the presence of the ACEO (planning) and the manpower planner.

19. The ACEO (planning) draws up the capital budget for the coming financial year, project by project, within the development plan, and then discusses it with the official concerned in the Ministry of Finance in the presence of the manpower planner.

20. Both sets of estimates, amended where necessary as a result of the discussions, are incorporated by the Ministry of Finance in the budget for the coming financial year submitted through the Cabinet to the National Assembly.

21. A similar procedure as between the education officer and the local - municipal authority is followed at the local level. The authority's budget is submitted for approval to the Ministry of Regional Administration, which checks, inter alia, that the educational budget is in accordance with approved plans.

Expenditure of funds and construction of buildings

22. At the beginning of the financial year the Cabinet releases such funds as are available and needed. Certain items may be held back for release later in the year. In some cases where an item has been included provisionally, the Cabinet will only authorize release after the case has been justified. All released funds are made available to the Ministry of Finance.

23. The Ministry of Finance authorizes the Ministry of Education to incur expenditure on released items and this is operated by the finance and establishments division.

24. Most foreign aid passes through the Central Government budget by the above routes but there may be some elements of foreign aid to the university which pass direct from the donor to the university council.

Primary schools

25. The Central Government contribution towards development of primary education is controlled by the Ministry of Education. Once the detailed projects are approved by the Minister as described in paragraph 13, the ACEO (planning) authorizes the finance section of the Ministry to pay the contribution to the local or municipal authority, notifying the Ministry of Regional Administrations so that it can incorporate the additional recurring contribution in its future annual budgets for subvention to the authority concerned. The authority receives these funds as income together with its other income and operates the expanded educational service from the total.

26. In urban areas the authority gives grants for capital development of primary schools to management committees, which employ architects and contractors to erect the buildings and which buy the furniture and equipment. In some rural cases a similar procedure is followed, but in most cases the erection of the school buildings and provision of furniture and equipment is a matter for the local community. Either the people erect a school in temporary materials, usually with a little cash contribution for the employment of workmen for the construction of such items as a corrugated iron roof, or they contribute rather more funds for the employment of workmen to erect the whole building. Neither the central nor the local governments have anything like enough funds for permanent buildings for all development of primary education.

Second-level and non-university third-level

Capital

27. The National Housing Corporation is responsible for the erection of central government schools. In consultation with the headmaster and the architecture and works sub-section of the planning section of the Ministry of Education it draws up the plans, and it either builds by direct labour or awards a contract to a private firm. Funds for this purpose are paid to the Corporation by the finance section of the Ministry of Education on the authority of the ACEO (planning).

28. For all aided second and non-university third-level institutions the Board of Governors is responsible for the erection of buildings. Its administrative work in this respect is usually carried out by the headmaster, sometimes helped by a building sub-committee. An architect appointed by the board draws up the plans in consultation with the headmaster and the architecture and works section of the Ministry, who may consult the inspectorate on suitability of buildings for educational purposes. Ultimately the plans need the approval of the Ministry, and this power is delegated to the ACEO (planning).

29. Once he has approved the plans, the ACEO (planning) authorizes the finance section of the Ministry to pay the first instalment of the capital grant to the Board of Governors. He authorizes the payment of the remaining instalments as he receives certification from technical officers of the National Housing Corporation that certain stages of the building programme have been satisfactorily completed. The Board of Governors calls for tenders from contractors, and submits its chosen tender to the Ministry for approval. The ACEO (planning) makes his recommendation to the Minister through the ministerial channels, and the Minister either approves or returns the proposal through the same channels to the Board of Governors for reconsideration. Once the approval has been given, the Board signs the contract and the work proceeds under the supervision of the architect.

30. In all cases, both government and aided schools, the headmaster submits his proposals for purchase of furniture and equipment to the ACEO (planning), who consults officers of the inspectorate on the educational suitability of the items proposed. Once the ACEO (planning) has approved, he authorizes the payment of the capital grant for this purpose and the Board buys the furniture and equipment.

Recurring

31. Recurring expenditure by the Central Government on both the maintenance of existing services and development is incorporated into one vote for each sector of the educational services, and the sector is treated as an expanded whole. Ugandan teachers are recruited by each Board of Governors, subject to the approval of the official concerned in the administrative section of the Ministry. Expatriate teachers are employed and paid by their aid agencies or by the Ministry, according to the agreed conditions of the technical aid agreement, and are posted to the schools by the officials of the administration section after consultation with the headmasters. Grants for Ugandan teachers and towards other non-teacher recurring expenses are paid quarterly in advance to boards of governors by the finance section of the Ministry on the authority of the section officer in the administration section. These are supplemented by fees and other income, and the headmaster operates the school bank account in the name of the Board.

University

32. Both capital and recurring grants to the university from the Government are paid to the university and/or college council by the finance section of the Ministry on the authority of the under-secretary for finance and establishments. In addition the university may receive further grants or loans from aid agencies direct, which are paid in accordance with the terms of the agreement.

33. The procedure for capital expansion is similar to that described above for second-level institutions. The under-secretary, being an official representative of the Ministry of Education on the council, keeps a watching brief on behalf of the Government on scales of accommodation, plans, etc. Contracts are awarded after competitive tender and payments are made for buildings, works, furniture, equipment, architects' fees, etc. by the college council.

34. University staff are either recruited direct by the college council or under various foreign aid agreements, which differ according to the donor.

Scholarships abroad

35. The procedure for selection of scholars is described later (paragraph 42). Once the selections are made, executive action is undertaken by the higher education office in the Ministry of Education in consultation with the embassies of the donor countries and those in which Uganda Government scholars are to study. The flow of funds in connection with scholarships awarded under foreign aid schemes is in accordance with the individual agreements. For Uganda Government scholars, the higher education office makes all the administrative arrangements such as applications for passports, booking passages, etc., and authorizes the finance section of the Ministry to pay expenses at the Uganda end.

36. Once the Uganda Government scholar arrives in the country of study, his affairs are taken over by an education attaché in the Uganda Embassy. Funds are transferred to the Embassy, which pays the expenses in the country of study.

B. Control of flow of students

Primary schools

37. Admission to and flow through the primary schools is under the control of each headmaster.

Primary to lower stage second-level courses

38. Admission to the more popular secondary general schools is controlled by what is colloquially called the 'auction'. This is a committee consisting of the heads of all such schools under the chairmanship of the Chief Inspector of Schools (CIS). Students leaving primary school are asked to state their six first choices of secondary schools in order of preference. They are placed in order of merit resulting from the common primary leaving examination and the CIS offers each in turn to the school of first choice, turning to the second choice, etc. if a child is refused. He ensures that no child qualifying by order of merit fails to obtain an offer. This procedure continues until all places are filled, including additional places created by the development plan.

39. Once the auction is complete, teacher training colleges and technical and farm schools at the same level make their choices from the remainder. Such choice is in the hands of individual principals of colleges, although in some cases the ACEO (planning) may require a college to take a specified quota from a particular area, especially into a teacher training college, so as to ensure a properly balanced supply of trained personnel in accordance with the development plan.

Lower secondary general to upper-stage secondary-level courses

40. An auction similar to that for entry to the lower stage is held for entry to the more popular secondary general course. Then there is a meeting of an ad hoc committee consisting of representatives of ministries conducting training courses, such as the Ministry of Health for nursing, the Ministry of Agriculture for extension workers, and including the Ministry of Education for teachers, for the purpose of choosing from the remainder. The manpower planner attends this meeting as an observer. These selections also are made for services expanded in accordance with the development plan.

Upper secondary to university

41. Entry to the university is in the hands of the university authorities which appoints its own selection body. Suggestions have been made that this selection should be incorporated with the selection of students abroad described in the next paragraph, but at the time of writing there is no information whether this has been implemented.

Students abroad

42. Selection of students to study abroad is made from candidates interviewed by a selection committee on which the most important representatives are the manpower planner from the Ministry of Planning and Economic Development, representatives of the ministries of Public Service and Foreign Affairs, political personages, and of course the higher education officer of the Ministry of Education, who is the secretary of the committee and the officer subsequently responsible for action. This

committee co-ordinates all selection for Uganda Government and foreign aid awards. It is informed by the Ministry of Internal Affairs of courses for which applications are made for passports for private study abroad, but can only note these applications and cannot influence the issue of the passports.

COMMENTS

43. Prior to independence in 1962, national planning was carried out by administrative officers in the Chief Secretary's office and the Treasury. With the change to a ministerial system arising from independence, a new Ministry of Planning and Economic Development was created, staffed in the main by economists, a new concept for a country like Uganda. On the other hand planning in the Ministry of Education grew out of the administrative structure. Its first head was an administrative officer, an ex-district commissioner. Its subsequent heads were officers with experience of educational administration. Inevitably these officers had to adapt their administrative practices to a planning orientation, and conversely their planning was considerably influenced by their administrative background. Hence the complete integration of educational planning with its administration described in this paper. It so happened that the personalities who were called upon to adapt themselves in this manner and those in the new-type Ministry of Planning and Economic Development could work happily together in spite of their different backgrounds and approaches. The result is that educational planning in Uganda is now firmly established as an integral part of its administration.

44. Therefore although changes of political opinion have resulted in development different from that originally planned, the system described in this paper works well. In addition to the influence of personalities, many aspects of the structure make for efficient administration, but there are two which call for comment.

45. There is no one person, ministerial section or body which co-ordinates the development of all educational services. The planning section of the Ministry of Education deals with primary, second-level and non-university third-level education, but has no official link with the university, training by technical ministries and East African Community departments or non-formal education. The manpower planner comes nearest to the complete link, with his contacts with the university, the educational planner and the development of second and non-university third-level education, the technical ministries and EACSO departments and ministries dealing with non-formal education. But he has no direct responsibility for primary education, except for its impact on needs for and supply of trained teachers.

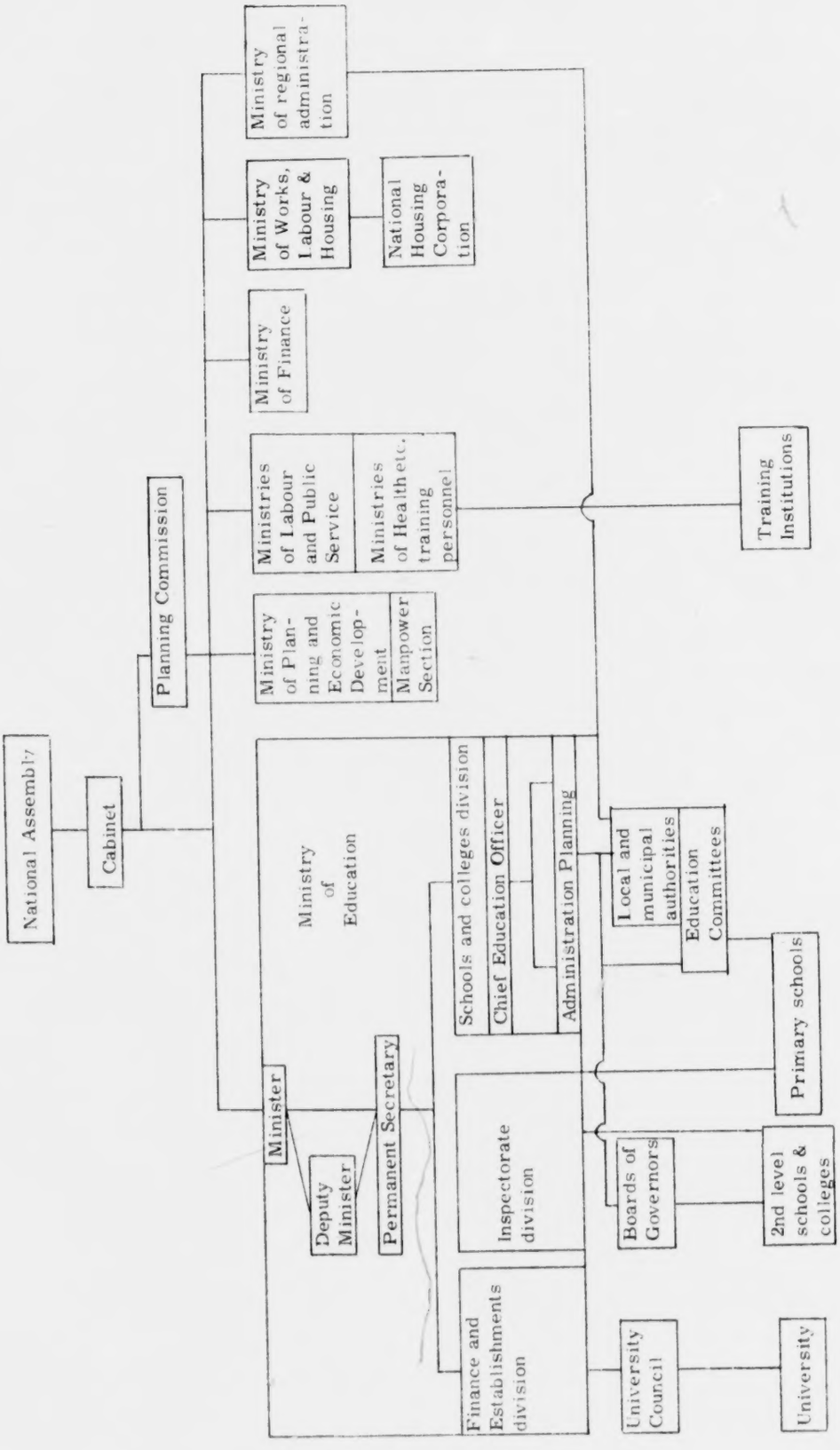
46. It so happens that this has not mattered because of the personal co-operation of the manpower planner, the educational planner and the under-secretary for finance and establishments in the Ministry of Education, but it is a bad principle to build structures on personalities who happen to be

operating them at a particular time. The Manpower Planning Board is predominantly concerned with manpower matters and only indirectly with educational affairs. Prior to its existence there was a working party on education and manpower, one of eleven set up to prepare for the 1966-1971 development plan. This working party co-ordinated most educational activities, with the exception of non-formal and non-aided private education. It would seem that a permanent body of this nature, covering all educational activities, including the manpower aspects, with representatives of all interested ministries and organizations, would be an advantage. Such a body could be made responsible to a higher political body such as the Cabinet sub-committee, which could be responsible for the policy aspects of educational development. 1/ Education covers such a wide range of activities, and affects an even wider range of spheres, that planning and implementing its development is inevitably a complex series of functions which need to be co-ordinated and carried out by various ministries and organizations. Good though the co-operation is in Uganda, the addition to the structure of its institutions of such a co-ordinating body would help to insure the continuation of this co-operation against the possibility of the coincidence of personalities who do not get on so well together as have those operating hitherto.

47. The other point of comment is the limitation imposed on the function of local and municipal authorities in the planning process. They are given a total 'ration' and told to work within it (apart from the ability of a few of the richer authorities to develop beyond their ration from their own resources). This circumscribes their action and usurps their initiative. Ideally it would be better to give them more freedom to submit ideas of their own, but unfortunately the present system is more appropriate to their present state of development. Even within these limitations there have been occasions when a local authority has acted irresponsibly, simply because local enthusiasm has overcome the advice of the education officer, due to lack of understanding of the wider issues involved and of experience in political administration. As time goes on, some authorities may take a more mature attitude and that might be the time to give them more scope for initiative in submitting proposals for their part in the national development plan.

1/ See paragraph 3.

ANNEX


National Assembly
Cabinet
Planning Commission
Ministry of Education
Minister
Deputy Minister
Permanent Secretary
Finance and Establishments division
Inspectorate division
Schools and colleges division
Chief Education Officer
Administration Planning
Ministry of Planning and Economic Development
Manpower Section
Ministries of Labour and Public Service
Ministries of Health etc. training personnel
Ministry of Finance
Ministry of Works, Labour & Housing
National Housing Corporation
Ministry of regional administration
Training Institutions
Local and municipal authorities
Education Committees
Primary schools
Boards of Governors
2nd level schools & colleges
University Council
University

Part III New administrative and budgeting techniques of use for educational planning

THE ROI E OF BUDGETS IN EDUCATIONAL PI ANNING

by Jacques Hallak

A significant characteristic of planning in developing countries is the relative importance of the public sector; this is even more true for educational planning, where the growth of the public sector is a dominating factor in the development of educational systems.

As details of public sector programmes are included in the budgets of the government and local authorities, and since educational planning is primarily concerned with formulating objectives for action, it would therefore be only logical to expect that the budgetary activity should play a major role in planning, programming and controlling educational costs during the planned period. As a matter of fact, a draft plan is only a blueprint for action, whilst budgetary activity is mainly operational in nature. This means that the budget should be so devised as to highlight the truly operational characteristics, both physical and financial, of any given programme. Such is, however, unfortunately not the experience of many developing countries; with a consequence that the operational character of what we may call 'traditional budgets' and their links with planning are largely obscured.

1. Traditional budgets

An annual budget constitutes the principal instrument with which the national authorities of a country express their priorities for government action. Ideally, one would like to identify an annual budget with a one-year plan; but, however, since planning consists in exploring the future, analysing the means to attain certain targets and deciding on programmes with a view to achieving them, while the preparation of a budget is usually determined by the situation of the moment, it is clear that one-year plans and budgets may co-exist in a country and may prove to be somewhat contradictory.

In a majority of countries, budgeting is conceived largely in financial terms. The financial accountability to the legislature is usually the over-riding consideration, and this permeates the entire budgetary process. The budget is traditionally thought of as a tool with which to control and distribute the flow of the actual financial resources of a state. The emphasis is placed mainly on the

observance of appropriation limits. In many respects, it is better adapted to the requirements of a financial comptroller concerned with preventing fraud and dishonesty, than to those of a manager or administrator responsible for making well-founded decisions for the use of public funds.

The classification of budgetary expenditures rarely enables identification of programmes or projects; furthermore, it is only infrequently related to the cost of major inputs or educational services performed. To give the case of Ceylon (see Table 1) as an illustration, cost analysts can neither isolate the cost of specific educational programmes or projects, nor can they estimate the budgetary unit cost of primary and secondary education separately. In other words, the traditional system of budgeting does not provide information on what a government is actually doing and what it gets for the money spent. Of course, it may be possible to compile such information from departmental reports or other supplementary documents, but in many cases this information cannot be directly linked with cost and finance data as they appear in a budget or in audited accounts, because it does not constitute a basis for budget management. The absence of pertinent information of this type reduces the usefulness of such a traditional budgetary approach even for purposes of legislative review and appropriation.

Yet, even in their traditional forms, budgets can play an important role in the development of plans in general and of educational plans in particular. The basic reason is that it has increasingly become the custom to express the consequences of educational plans in budgetary terms. It is therefore particularly tempting to consider the budget as the most appropriate tool for controlling the implementation of the plan through the programming of its costs and the ensuring of annual appropriations of funds needed.

Let us take two examples from socialist countries : USSR and Hungary. In spite of traditional types of budget, these two countries make extensive use of norms, standard and unit costs in budgeting and programming their educational plans to the extent that their annual budget is considered as the most appropriate tool for the execution of the plan. In Hungary, for instance, each year during the preparation of the educational budget, the detailed planned costs of the five-year plans serve as a basis for estimating the budgetary allocations. Small adjustments of plan targets might occur due to budgetary constraints unforeseen in the plan.

In practice, the role of the budget will depend on several factors, the most important of which are the following :

(a) Imperative or indicative planning

The degree of flexibility of educational plans will be directly reflected in the educational budget. As we have seen in the case of a country like Hungary, the annual budgets are the financial expression of the implementation of the plans, and will thus enable regular appraisals to be made of the extent to which the long-term forecasts have been realized.

Table 1. A specimen estimate for Ceylon

Estimates, 1968/69		
Head 145. Minister of Education and Cultural Affairs, Vote No. 4		
Elementary Education	Rs.	Rs.
Expenses connected with the Paddy Weeding Programme and Works Experience		687,000
Secondary Education		
Maintenance of and improvements to Maha Vidynlayas and Madhya Maha Vidyalayas		1,100,000
(Maintenance, repairs and improvements and minor construction including water services and drainage, latrines and wells)		
Apportionment No. 1. Head Office	1,100,000	
Library Books and Periodicals		400,000
Apportionment No. 1. Head Office	400,000	
General School Expenses		690,800
Apportionment No. 1. Head Office		
Item (1) Requisites for teaching of science	250,000	
(2) Requisites for teaching of art	15,000	
(3) Supply of blackboard instruments	6,300	
(4) Supply of chalk, stationery and other miscellaneous consumable stores		
(a) chalk	100,000	
(b) stationery	100,000	
(5) Supply of other school equipment, globes, maps, etc.	50,000	
(6) Supply of minor consumable articles to the College of Music and dancing and Ballet	8,000	
(7) Supply of simple medicines	1,500	
(8) Repairs to furniture and other school equipment	160,000	
	690,800	
Vocational Education		50,000
Apportionment No. 1. Head Office	50,000	

Specimen page from 'The Estimates of the Revenue and Expenditure of the Government of Ceylon for the Financial Year 1 October 1968 to 30 September 1969', Appropriation Act No. 38 of 1968.

In countries where educational plans remain mainly indicative or not fully comprehensive, the significance of the budget figures is not so important as the amounts actually budgeted during the plan period do not necessarily correspond to a definite degree to the achievement of the educational target. These targets may prove to be more or less costly to attain; the only significant way to control their implementation should be based on physical data. Such data does not appear in traditional budgets.

(b) Conversion of targets of the plan into specific projects

A sound and reliable plan should always be converted into definite projects of construction and development (creation of new staff posts, etc.), each project having been costed carefully, and the budget should be drawn on the basis of these items. In this way, the budget can have a significant role to play in making available the funds necessary for actually achieving the targets. To a certain extent, this is what has happened with the present educational plan in Tanzania; although the large proportion of external aid expected in the financing of the plan has been a major cause of the difficulties found in reaching the targets.

(c) Proportion of public sources of financing

In several developing countries, foreign aid contributes a significant share of the financing of the educational plan. Under these circumstances, the national budget covers only a fraction of the planned programmes. On the other hand, in countries where external aid plays a minor role - everything being equal - the budget will obviously play a larger role in the execution of the plan.

(d) Systems of financing education

In federal types of countries, with decentralized methods of financing, state and local authorities budgets can really be the key tools for programming and controlling educational costs, since federal government budgets are to a large extent more general and also cover only a very minor proportion of educational costs. On the other hand, in countries with a centralized system of financing education, the national budgets which bear the greater part of the financial burden should be made more effective instruments for the implementation of educational plans.

(e) Relations between Ministries of Education, Planning and Finance

It is not an exaggeration to say that the administrative organization of inter-ministerial committees for the preparation of educational plans has a very considerable effect on action taken with regard to the programmes set up for the period covered by the plan.

If the educational plan is prepared by a specialized group which has no contact with the finance ministry, whether the group belongs to the ministry of national education or to a planning commission, difficulties will arise at the execution stage of the plan. The annual budgets may appear as if they had been established quite independently from the forecasts made in programming the plan. With such possibilities frequently occurring it is necessary to give the planning service a certain degree of superiority over the budget service as soon as the principle of planning has been accepted.

In short, the national budget can play a role of greater or less importance in the service of the educational plan according to the country, and the circumstances and characteristics of the planning system itself. It can stimulate the fulfilment of the educational plan by financing of a discretionary character, specifying programmes to be carried out and assigning them an order of priority. It may, in some cases, be the essential instrument for the execution of the educational plan. In all events, both as a 'watch-dog' and as a yardstick for measuring the fulfilment of the planned programmes, the budget is undoubtedly an indispensable complement to the educational plan.

2. The need for new approaches in budgeting

With the generalization of planning procedures and the ever more striking manifestation of an imperative need for a more rational management of public finance, the question arises as to whether budgets of the traditional type can continue to play an entirely satisfactory role in the implementation of educational plans.

How indeed can the achievement of quantitative and qualitative educational targets be measured unless the means to attain them are explicit and are annually programmed? Can the budget be the instrument of execution of the plan if alterations and reorientations of existing programmes, annually decided upon in small doses (since 'new measures' 1/ rarely constitute more than 10 per cent of the national budget) are not systematically planned in all the budgets of the plan period?

Finally, the traditional budget methods which:

(a) distinguish requirements and funds by balancing them one against another;

(b) programme the requirements in annual slices and allocate the funds to administrative services compartmented according to the nature of their activities;

(c) exclude to some extent the necessary close reference between the investment expenditure of one year and the operating costs ensuing during succeeding years;

(d) thereby prevent any comprehensive and comparative appraisal of the total cost of an investment;

obviously do not entirely meet the informational requirements dictated by the desire for a rationalization of national options - a role which it would be desirable to attribute to the budgets.

As a matter of fact in 1962 the United Nations Secretary-General stated in his report:

> 'The budgetary systems of many developing countries have failed to keep pace with the new demands made on them by the greatly increasing scope of activities of the public sector and, in particular, by the adoption of a planned approach to economic development. Thus, the need is first for the development of new types of information on the public sector

1/ 'New measures' and 'services voted' are the terminology used in the French budgets, but they correspond to budgetary concepts admitted in all countries.

> essential for drawing up long-term development plans, and second for changes in concepts and procedures in government budgeting required to make the annual budget an effective instrument for implementing the development plans and policies'.1/

In response to the need for correcting this situation, several attempts for improving budgetary activity have been made:

At the school level, management considerations and the need for cost analysis have led to the introduction in a few countries (U.S.A., Canada, etc., but also Uganda, Thailand, etc.) of functional breakdown of the budget items, distributing the expenditures by purpose and type through a uniformized system of accounting.

At the national level, with a view to completing the information provided by the traditional budgets, an effort to group the expenditures by major functions (broad grouping of operations that are directed towards accomplishing a major purpose of government) has been initiated in some countries. A function may be defined as a major division of the total organized effort of the government which identifies distinct and separate services provided to the public - such as education, health, agriculture, etc. 2/ A classification of this kind, which may be common among various countries, provides helpful information on purposes served by governmental expenditures, irrespective of the organization making the expenditure. This is accomplished by grouping programmes and activities of organization according to the basic services provided, each of which has significance from the standpoint of the duties and responsibilities of the government as a whole. Thus, a functional classification can show the share of public budget devoted to education and other public services. In this respect, it is most useful for formulation, review and implementation of broad policy objectives, and therefore of primary interest for top-level legislature and executive review.

It is none the less true that although it helps to rationalize decisions, the functional budget does not direct action because it does not enable a clear connexion to be established between the functional category and the programme to be put in hand. Nor does it provide data on the nature of proposed work, its relation to policy objectives, planned performance and its cost. This is despite a definite tendency among those responsible for preparation of such budgets to use functional and subfunctional categories for segregating governmental expenditures according to the immediate or short-term purposes served.

1/ United Nations, The United Nations Development Decade: Proposals for Action, New York, 1962 (Sales No. 62 II B2), p.112.

2/ As an illustration, Table 2 gives the breakdown of the French Budget, by function.

Table 2. Functional distribution of public expenditure in France

	Index for 1965 (1964=100)	Percentage of total budget expenditure 1964	1965
General administration and public powers	107.2	9.2	9.2
National defence	105.2	20.7	20.3
Foreign and overseas	95.9	4.5	4.0
Education and culture	113.3	17.3	18.2
Social services	105.9	14.3	14.1
Economic services	106.8	23.3	23.1
Housing, urban development and land improvement	114.7	5.7	6.1
Public debt and non-functional expenses	108.9	5.0	5.0
	107.5	100.0	100.0

Source: The French Republic. Budget for 1965. Ministry of Finance and Economic Affairs, Directorate of the Budget, Paris, Imprimerie Nationale (Government Printing Office), 1965.

In their present structure, therefore, functional budgets do not seem to meet all the needs arising from the generalization of planning procedures and the desire for the rationalization of the management of public funds.

The use of programme and performance budgeting developed essentially in response to the call for improving this situation; it is intended to highlight management consideration in budgeting and in so doing to bring out the most significant economic, financial and physical aspects of the budgetary activity. 1/ The programme and performance approach to budgeting is based principally on the use in budget management of three sets of interrelated considerations: (i) meaningful 'programmes' - broad categories that identify the end products of major organizations - and 'activities' - segments of a programme that identify homogeneous types of work carried out by subsidiary organizations to produce the end products of a programme - are established for each function entrusted to an organization or an agency in order to show precisely the work objectives of various agencies; (ii) the system of accounts is brought into line with this classification; (iii) under each programme and for its operational subdivisions, action is taken to establish programme and work measures that are useful for evaluation and performance. 2/ This involves establishing an appropriate relationship between long and short-range plans and identifying that segment of the plans that is proposed to be implemented in the annual budget.

1/ Such a system was introduced in a few countries, e.g. the Philippines; in the U.S. this system has been given the name of 'performance budget'.

2/ Units of work measurements in selected programmes in the Philippines are included for illustrative purposes in Table 3.

Thus, to a large extent, a programme and performance budget can respond to such key questions as: What is the purpose of doing a specific thing? What is the cost of doing it, and how far have the programme objectives been accomplished?

Yet the programme and performance budget, in spite of its degree of refinement and sophistication, is still no more than a descriptive tool for the scope of action of the government, insofar as it does not aim at examining alternative means for reaching the targets, nor does it suggest the main programmes or projects to be adopted by the public authorities.

The Planning-Programming-Budgeting System

An important reform which is taking place in several countries aims at improving the efficiency with which the public funds earmarked for national objectives are utilized. This reform originates from planning, but has developed of its own accord, especially in the United States. It is already being applied in Canada, France and other countries.

To use the expression of William Gorham 1/, the reform has 'an overwhelmingly long title': Planning-Programming-Budgeting Systems.

Planning: This is an attempt to determine by means of forward-looking research the full range of long-term targets for which the various departments of a government recognize their responsibility. By 'long-term targets' is meant here the strategic objectives in a timetable which varies according to the case.

Programming: This term involves the definition of the material, financial and human resources which are best adapted to the successive achievement of the targets, that is to say the working-out of the medium-term programmes which are the usual components of an over-all plan. Programming implies a comparison of alternative means for attaining a given target with a view to selecting the best of these means.

Budgeting: This is the conversion into budgetary terms of annual proportions of the accomplishment of the programmes with allowance for short-term financial restraints.

Concretely, the procedures consists of the following actions:

- for countries already using planning - the application of a technique for improving the preparation of the plan by a rational choice of programmes and for ensuring their implementation by the adoption of a programme budget for each year of the planning;
- for countries originally not using planning - first, the establishment and application of medium-term plans for each governmental function, to be revised and brought up to date every year, and second, the use of the first year of the plan as the framework for the next budget, it being evident that the preparation of the annual budget will necessitate more rigidity in the plan.

1/ William Gorham was until May 1968 Assistant Secretary in the Department of Health, Education and Welfare in the Government of the United States.

Table 3. Units of work measurement in selected programmes: The Philippines

Function	Organization	Programme	Project	Unit of work measurement
General Government	Bureau of Internal Revenue	Administration and enforcement of internal revenue laws, special tax laws and regulations	1. Tax rulings and other legal services	Rulings issued
			2. Tax assessment	(a) Tax returns processed and/or assessed (b) Tax cases processed and/or assessed (c) Tax investigations conducted
			3. Tax collection	Cases closed
			4. General administration	General administrative employment ratio; general administrative expense per man-year
Education	Bureau of Public Schools	Vocational education	1. Trade and industrial education	Students enrolled
			2. Agricultural education	Students enrolled
			3. Fishery education	Students enrolled
			4. Philippine nautical school	Students enrolled
			5. Training in home industries	Trainees enrolled
	Bureau of Public Libraries	Library and archives administration	1. Library extension service	Patrons served
			2. National library	(a) No. of books etc. catalogued, classified and processed (b) Patrons served (c) Indexing entries
			3. General administration	General administrative employment ratio and expense per man-year
Health	Field operations	Field health services	1. Rural health units	Units operated
			2. Dental services	Patients attended
			3. Social hygiene services	Number of cases handled
			4. Malaria eradication services	(a) Persons protected (b) Research activities
			5. Tuberculosis control services	Persons attended
			6. Environmental sanitation	Inspections conducted

Table 3 (Cont'd)

Function	Organization	Programme	Project	Unit of work measurement
		Hospitals services	1. Operation of general hospitals	Number of free beds
			2. Operation of special hospitals	Patient days (a) Maternity (b) Children (c) Mental (d) Orthopedic (e) Communicable diseases
			3. School of nursing	Persons trained
			4. School of midwifery	Persons trained
			5. Aid to puericulture	Narrative statement of purpose of aid
			6. Laundry plant	Number processed
	Bureau of Laboratories and Research	Laboratory examination production and research	1. General management	Administrative employment ratio and expense per man-year
			2. Pathological and macrobiological examination	Number of examinations performed
			3. Laboratory research	Number of research studies conducted
			4. Blood plasma dehydration	Cubic centimetres of blood products
			5. Sanitary chemical analysis	Number of examinations performed
			6. Vaccine production	Cubic centimetres manufactured
			7. Food and drug analysis	Number of examinations performed

In other words, in the first case the budget is rationalized by being placed at the service of the plan and in the second case the plan is established for the improvement of the budget.

Whichever course is followed, working out a PPBS is an operation which takes a great deal of time in itself. It involves the establishment of a system of budget classification which collates programmes and allocations according to the principal targets, functions, and groups that benefit from them. The code of reference adopted should also serve to classify items according to the administrative agency responsible, budget assignment, method of financing and legislative status. In France, for example, operations aimed at classifying the activities and expenditures of a ministry in terms of programme headings have been undertaken in only a few ministries (principally the Ministry of the Armed Forces and the Ministry of Agriculture). In the United States,

The reform of the budget classification system was introduced into all government departments in 1965. By way of illustration only, Table 4 shows the reference codes and programme categories adopted for education. 1/ It is important to note that any category given at a particular level may appear in combination with any category of another level. For example, a programme having as its objective 'General research' (level 2, category 5) may include one or more programme targets of level 3.

As Novick said 2/:

> 'The PPBS method is to set forth certain major objectives, to define programmes essential to these goals, to identify resources to the specific types of objectives and to systematically analyse the alternatives available'

This means that the PPBS system implies a thorough systems analysis leading to choosing the 'preferred mix' of a set of proposed projects which cannot all be undertaken. Such decisions present very complex problems and require, first, qualitative discussion of some of the more relevant non-quantifiable issues involved in the decision, e.g. political factors, non-quantifiable 'spillover' effects and the like; and, second, the adoption of a set of quantifiable selection criteria to which the costs and advantages of competitive programmes can be compared. Taking as an example decisions to be made among alternatives proposed for water resources projects, G.H.Fisher from the Rand Corporation has established Table 5 as a frame of a summary of results of such systems analysis. 3/

1/ Comment on the categories in Table 4.

Level 1: Education - A programme having as its objective to aid the development of individual aptitudes and attitudes by regular training and education.

Level 2: Purposes of education - A statement of the deeper reasons for education, explained in general terms.

Level 3 and 4: Statement of special objectives of the federal government action from the standpoint of the major sectors of the population concerned and according to the nature of this aid. Through the various combinations of categories 3 and 4 can be found the motives for federal aid and the channels through which the federal government assists the states and local governments to achieve the principal objects of education

2/ 'Origin and History of Program Budgeting', The Rand Corporation, Santa Monica, California, October 1955, p. 3,427.

3/ The Analytical Bases of Systems Analysis, May 1966.

Table 4. Coding and classification by categories of the material and financial plan of the U.S. Department of Health, Education and Welfare

Code	Level	Categories
	1	Major program
1 _ _ _ _ _ _		Education
	2	Purposes of education
1 1 _ _ _ _ _		Development of natural aptitudes and basic behaviors
1 2 _ _ _ _ _		Development of technical and vocational aptitudes
1 3 _ _ _ _ _		Development of university and graduate aptitudes
1 4 _ _ _ _ _		Development of the individual in the community
1 5 _ _ _ _ _		General research (research not assignable)
1 6 _ _ _ _ _		General administration (salaries and expenditures of the Office of Education which cannot be assigned to any of the above categories)
	3	Program targets
1 _ 1 _ _ _ _		To increase the education of the general population
1 _ 2 _ _ _ _		To increase the education of the underprivileged
1 _ 3 _ _ _ _		To increase the education of the handicapped
1 _ 4 _ _ _ _		To improve knowledge about other countries
1 _ 5 _ _ _ _		Others
	4	Features of programs
1 _ _ 1 _ _ _		Increases the resources of the school system
1 _ _ 2 _ _ _		Improves the quality of the teaching system
1 _ _ 3 _ _ _		Develops and introduces new methods
1 _ _ 4 _ _ _		Collects and improves educational statistics
1 _ _ 5 _ _ _		Favors equal opportunities for education (Civil Rights)
1 _ _ 6 _ _ _		Acts upon the social environment
1 _ _ 7 _ _ _		Others

Table 5. The use of systems analysis in choosing the preferred mix project

Analytical factor	Proposed projects 1 2 3 4 ... n
(1) Present worth(a) ($)	
(a) Discounted at 2 1/2 per cent (50 yr.)	
(b) Discounted at 5 per cent " "	
(c) Discounted at 8 per cent " "	
(2) Possible variability of outcome:	
(a) 'Most likely' range of present worth (low-high $)	
Range of present worth outside of which outcome is 'very unlikely' to fall	
(3) Effect on personal wealth distribution:	
(a) Number of farms affected	
(b) Average value of land and buildings per farm in the watershed ($)	
(c) Average net benefit per farm owner ($)	
(4) Effect on regional wealth distribution:	
(a) Average increase in per family income in the Basin ($)	
(b) Percentage increase in average income in the Basin due to project	
(5) Internal rate of return of project (%)(b)	

(a) Present value of estimated benefits minus present value of estimated costs.

(b) The rate of discount which reduces present worth to zero.

The option stage can be regarded in more than one way, and the criteria will naturally vary according to the viewpoint adopted. It is clear that programme analysis for the purpose of rationalizing budget choices can never take into account all the possible consequences of the adoption of a given programme. To accomplish that, it would be necessary to establish a 'national satisfaction function' by which, for example, the respective consequences of the assignment of the same amount of funds to education and to defence could be measured. Such a high level of decision-making dealing with major matters of allocation must be (and is) based primarily on intuition and judgment.

Analysis will be more helpful if it is to provide solutions for decisions on a somewhat lower level; these solutions in turn might provide valuable information for higher-level decisions. It is on these somewhat lower decision levels (technically called 'suboptimization') that the analytical studies are likely to have the highest pay-off. This is incidentally one of the advantages of PPBS, insofar as it leads to increased possibilities of decentralization and to the creation of incentives for efficiency.

To come back to the selection criteria, there are numerous techniques used; for instance cost-effectiveness, cost utility and cost-benefit analysis. The advantages and the limitations of such techniques are dealt with elsewhere. However, two remarks should be made here:

(i) Whatever the technique used, it implies careful cost analysis of projects and programmes to be budgeted; in this respect a prerequisite for the application of PPBS is the availability of sufficiently detailed cost estimates for carrying out a thorough cost analysis.

(ii) The weaknesses of any quantitative selection criteria, particularly in respect to the educational budget, are such that they become probably the most serious obstacle to overcome in the generalization of PPBS. It can be admitted that in the social budget of the nation as a whole, and in the educational budget in particular, the problem of selection is not necessarily solved when the most economically efficient programmes have been determined. The 'redistributive' function of educational budgets prevents us from giving priority in decision-making to the criterion of economic efficiency. We are faced with a contradiction between the efficiency criterion and the social justice criterion, and the question 'Who will benefit from this or that programme? can weigh more heavily in some cases than the question 'Which of these programmes has the highest rate of return?'

The PPBS is a method which covers, in theory, a very wide field since it brings together the planning, the budgeting, and the rational appraisal of the possible options. In fact, however, PPBS is not a substitute for over-all planning since it cannot, in the present 'state of the art', integrate coherently the full range of the nation's activities; and, further, in view of the difficulty of establishing selection criteria, it does not yet provide by itself final solutions to questions of budgetary choices.

On the other hand, PPBS undoubtedly marks an advance by its attempt to clarify the management of public affairs by its encouragement of rigid programming of the operations included in the plan, and by its effect as a catalyst and stimulant of research on the criteria of selection. PPBS involves a better analysis of the consequences of the targets proposed by the planners, and thus in turn affects the choice of these targets.

Should we therefore conclude that the use of PPBS should be generalized in all developed and developing countries? To pronounce upon the value and the advisability of applying PPBS to the education sector obviously involves a political choice. To mention only the technical aspects of the introduction of this method, it can be said that it would require the forming of teams at a high level in each department or ministry of the government simply in order to put it into practice, and it would also presuppose a decentralization of the decision-making process at each government level, with due respect for standards and criteria admitted by all. Furthermore, it would call for a complete change in the state of mind and in the traditional relationships existing between the budget services and the spending departments. In other words, an essential preliminary to the introduction of PPBS in the educational sector must be a retraining of authorities and officials and a reappraisal of the traditional relationships between budgeting and educational planning. On these grounds at least, therefore, it merits examination and consideration by educational planning authorities.

NEW MANAGEMENT TECHNIQUES AND EDUCATIONAL PLANNING

by Ta Ngoc Châu

The progress made in operations research and in systems analysis and the remarkable improvement of modern computers (both hardware and software) have facilitated the rapid development of what are known as new management techniques. This development has been accompanied by changes in the terminology used by those specialists who only a short while ago were speaking in terms of 'Scientific Management', but who now refer with increasing frequency to 'Managerial Sciences'.

It is true to say that the use of these techniques in the management of large commercial and industrial companies, and of certain government agencies, has given generally satisfactory results. Their extension to other fields of application has therefore been examined - including their utilization in educational planning. However, the experience acquired so far, both in Europe and in North America, is still to limited and too specialized to enable a definite conclusion to be drawn. It would seem, nevertheless, that these techniques are very likely to play an important part in educational planning in the future. The present study is intended to shed a little light on this problem and to serve as a basis for discussion.

It is not an easy matter to give a satisfactory definition of the new management techniques because they have many diversified aspects and serve many different purposes. They do however have one thing in common. In one way or another, they enter into the decision-making process and their role is precisely to facilitate decision-making. It should be added that the basic assumption on which these techniques are founded, when they are used to give guidance in decision-making, is that of a systematic search for efficiency in the use of available resources.

To the extent that new management techniques serve as instruments which help to prepare for decision-making, they are fully applicable to the different stages of planning - whether it be the central stage when the general plan is worked out or the lower stages at which more limited plans are applied. They are also applicable to the different phases of the planning process, including both the determination of the objectives and programmes and their implementation. Indeed, the results obtained in the implementation will enable an over-all evaluation to be made and will facilitate, if necessary, changes in the programmes and even a reappraisal of the objectives.

It would not of course be possible to describe these various techniques in this brief study. It is useful, however, to review their principal characteristics. It will then be possible to show how they have already been applied in educational planning.

Part I : Essential characteristics of the new management techniques

We have already defined the new management techniques as being instruments which help to prepare for decision-making. The process of decision-making should be understood in its broadest sense. It is not limited to the final phase of the choice of the policy to be followed. It goes far beyond that in seeking out and identifying problems which may arise, in working out different possible solutions and finally in the selection of the best possible solution. In reality, the distinctions may be less clear. The search for a solution may lead to the identification of a new problem and call for a new process of decision-making. It is nonetheless true that these three phases (identification of the problem, search for possible solutions, choice of the most suitable one) always occur, and that the new management techniques are applicable to every one of them.

Although these techniques are closely involved in the decision-making process, it is obvious that it is not the techniques themselves - and much less the computers which allow us to use them - which govern the decision.

It would also be untrue, or exaggerated, to say that the new management techniques 'rationalize' the decision, for that would imply that without such techniques the decisions would not be rational, or at least less rational. Actually, what the new techniques contribute is not greater rationality but wider and more complete information.

> 'In reality, most major long-range planning decision problems must ultimately be resolved on the basis of intuition and judgment. ... We suggest that the main role of analysis should be to try to sharpen this intuition and judgment. In practically no case should it be assumed that the results of the analysis will make the decisions. The really interesting problems are just too difficult, and there are so many intangible (e.g. political, psychological, and sociological) considerations that cannot be taken into account in the analytical process, especially in a quantitative sense. In sum, the analytical process should be directed toward assisting the decision-maker in such a way that (hopefully) his intuition is better than it would be without the results of the analysis'. 1/

1/ G.H. Fisher, 'The role of cost/utility analysis in program budgeting' in D. Novick (Ed.), Program analysis and the Federal Government, Cambridge, Mass., Harvard University Press, pp. 67-68.

A. Increased utilization of information in the decision-making process

The increased role of information results on the one hand from the systematic adoption of a new analytical approach and on the other hand from the possibilities offered by modern computers in the handling and processing of data.

This new approach is known as the Systems Approach :

> 'Essentially the systems approach involves viewing any productive systems as a whole in order to examine how its productive process functions in relation to its resource 'inputs' and its intended 'outputs'. This analytical approach can be usefully applied to all sorts of productive systems, including an educational system and its various subsystems.
>
> A 'systems analysis' begins by defining as precisely as possible, the objectives to be sought. It then proceeds to identify the various alternative ways by which these objectives might be attained and to weigh the relative advantages and disadvantages of alternative approaches in order to select the most effective feasible and economical one. Having chosen what seems the best alternative, it proceeds to elaborate a plan of action, including a time-table, a definition of actions to be accomplished during each phase, the various resources that will be required along the way, the nature and timing of results anticipated, and practical means for regularly evaluating progress and for making necessary changes in the initial plan'. 1/

In short, there are two essential consequences involved in this approach, in so far as the decision-making process is concerned. Firstly, there is the necessity of foreseeing not only the direct effects of a decision but also all the repercussions it may have on the system as a whole. The second consequence is the care which must be taken not to limit one's thinking to the immediate effects but, on the contrary, to search out systematically long-term effects. From this twofold point of view, we can say that the systems approach widens the horizons of analysis.

Systems analysis, in fact, offers nothing new in itself. Economists have always used it in theoretical analysis. What is new, however, is its systematic use in concrete situations to solve problems of choosing between various alternatives and between different policies.

Given that real situations are extremely complex it is clear that the application of such an approach may involve the collection and processing of much more data. In the field of data collection, the remarkable progress of electronic data processing, in the last twenty years, has been the decisive factor in developing and extending the fields of application of new management techniques. However, computers are not by any means a sine qua non in the use of new management techniques. Their use is quite conceivable with simpler means. After all, these techniques are not to be considered as prescriptions implying the use of a given type of computer. Their origin is essentially to be found in a manner of conceiving and solving problems.

1/ W. Schramm, P. H. Coombs et al, 'The new media - Memo to educational planners', Paris, Unesco/IIEP, 1967, p. 162.

In classifying the different types of decisions, Herbert Simon - who is undoubtedly one of the leading specialists in the new techniques of management - suggests that a distinction be made between programmed decisions and non-programmed decisions.

> 'Decisions are programmed to the extent that they are repetitive and routine, to the extent that a definite procedure has been worked out for handling them so that they do not have to be treated de novo each time they occur. ...
>
> Decisions are non-programmed to the extent that they are novel, instructional and consequential. There is no cut and dried method for handling the problem because it had not arisen before, or because its precise nature and structure are elusive or complex or because it is so important that it deserves a custom-tailored treatment'. 1/

In reality, this distinction is of course not so clear. The decisions to be made are not only programmed or non-programmed; between these two extremes there is a whole series of intermediate decisions. This classification, like all classifications, is to some extent arbitrary, but it appeared to be a convenient way of illustrating the different kinds of new management techniques.

B. New management techniques and different kinds of decisions

Let us now consider briefly the new management techniques which may be applied within an area which ranges from programmed to non-programmed decisions.

1. PERT and time-phasing of operations in a complex project

The implementation of a project, that is to say converting the project into definite actions which will enable it to be carried out by a given date, constitutes a typical programmed decision.

The Program Evaluation and Review Technique (PERT) is intended precisely to solve that problem of time phasing by breaking the project down into the different operations, estimating the probable time required for each operation, establishing the relationships existing between them, and determining, in particular, the operations the completion of which is a necessary condition for the beginning of the subsequent operations. As a result of an analysis of this kind, it can be seen that the time required for the fulfilment of the project does not depend on the time-lag of the entire series of operations but only on some of them, that is to say the operations which succeed one another in the critical path. This path is of special interest because all the time-lags for the operations in this path will be automatically reflected in the total period of time involved in the fulfilment of the programme.

PERT, even looked at in this very simplified manner, is a good example of the approach, method and objective of the new management techniques. By a systematic analysis of the problem as a whole, their essential purpose is to assemble the various factors which will facilitate the

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1/ Herbert Simon, The shape of automation for man and management, New York, Harper and Row, 1965, pp. 58-59.

determination of a course of action (starting date and order of operations), to identify all possible problems in advance (through the design of the critical path) and to evaluate the implementation of the programme continuously by checking the results obtained against the plan which has been laid down.

The problem which PERT is intended to solve is relatively simple. The target to be attained is in fact clearly specified. Operational research is directed, to a certain extent, towards problems of the same type, that is to say problems in which the targets or objectives are clearly defined.

2. Operations research and determination of the optimal solution

The conduct of military operations during the Second World War created extremely complex logistic problems. The task of solving these organizational problems was turned over to teams of mathematicians, statisticians and economists. Confronted for the first time with concrete problems of management and administration, these men used their own methods and the instruments of analysis with which they were familiar. The results had a decisive effect on the very nature of operational research.

From the work of those teams of specialists there came into being a whole series of mathematical tools - linear programming, dynamic programming, theory of probabilities, theory of games, etc.

Although great progress has been made in all these fields, and although the combination of these mathematical tools with the capabilities and the calculating speed of modern computers has made it possible to solve problems of ever-increasing complexity, it must be noted that operational research is applicable only to certain types of decision-making problems.

We quote in this connection from Charles Hitch, a specialist in operations research, who worked for a long time for the U. S. Defence Department and is now President of the University of California :

> 'I would make the empirical generalization from my experience at RAND and elsewhere that operations research is the art of sub-optimizing, i. e. of solving some lower-level problems, and that difficulties increase and our special competence diminishes by an order of magnitude with every level of decision-making we attempt to ascend. The sort of simple explicit model which operations researchers are so proficient in using can certainly reflect most of the significant factors influencing traffic control on the George Washington Bridge, but the proportion of the relevant reality which we can represent by any such model or models in studying, say, a major foreign policy decision, appears to be almost trivial'. 1/

Owing to the fact that operational research can be applied only to a limited number of problems, an effort has been made to introduce other techniques in solving, for example, the problem of resource allocation. Cost-benefit analysis is one of these techniques.

1/ Quoted by F. Rourke and G. Brooks, in The managerial revolution in higher education, Baltimore, John Hopkins Press, 1966, p. 10.

3. Cost-benefit analysis and the problem of resource allocation

Cost-benefit analysis is essentially a method for making a choice between different projects and programmes. By a systematic comparison of costs and benefits (direct and indirect benefits, present and future benefits), it provides a yardstick for the evaluation of uses of resources.

To the extent that this method requires the most accurate evaluation of benefits which is possible, it presupposes that the objectives of each project of each programme shall be clearly defined and it also presupposes that the anticipated results shall be distinctly specified. That in itself clarifies to a certain extent the problem of choice.

Cost-benefit analysis is not, strictly speaking, a new technique. It was already known and used in solving some particular problems, but it is only recently that its use has become generalized. This generalization is undoubtedly due to the constant development of the public sector, but we believe it is also due to the possibility of estimating the expected benefits more accurately, thanks to the improvement in the collection and processing of data.

Cost-benefit analysis can be used ex post to compare different projects already being carried out, but it can also be employed ex ante in deciding upon the utilization of available resources. Cost-benefit analysis, for instance, is systematically applied in the preparation of programme-budgets. We shall not dwell upon this problem because it is thoroughly covered in another paper presented in this seminar.1/

By providing a yardstick for the evaluation of different projects and programmes, cost-benefit analysis unquestionably gives valuable aid in the decision-making process. In this process, however, it may prove to be very useful to know how the implementation of a project or the alteration of a sub-system may affect the whole system, especially where a very complex system is concerned. That is, to some extent, what simulation techniques propose to do.

4. Simulation and model-building

The essential purpose of simulation is to facilitate experimentation, that is to say an analysis of all the effects of an action. It is, of course, always preferable to experiment under real conditions, but that may prove to be impracticable or even impossible.

A solution may then be to simulate the real conditions and to experiment, for example, with a scale model. But simulation may also take much more abstract forms - for example, the operation of a complex system can be simulated by means of a mathematical model.

As we have suggested, the essential purpose of simulation - and consequently of simulation models - is to make it possible to see how the change or alteration of one or more elements of a system may affect the whole system. In order to perform this role, models must possess two qualities which would seem to be almost contradictory - trueness and simplicity. It is indeed necessary

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1/ See : J. Hallak, 'The role of budgets in educational planning'.

for the model to be a faithful representation of reality and to incorporate the basic aspects of the system, but it is also necessary for it to be not too complex to be easily understood and handled. Unfortunately, faithful models are rarely simple and simple models are rarely faithful. It is readily seen, therefore, that modern computers, by their capacity and their calculation speed, can be a decisive factor in the development and the generalized use of mathematical models.

Such are, in very brief outline, some of the new management techniques. Let us now try to see how they have been applied to educational planning, and what problems this application may possibly present.

Part II : The use of new management techniques in educational planning

From the point of view of the resources which it consumes, education can be considered, in most countries, as one of the greatest national industries. As a matter of fact, the management of some aspects of schools and universities does not differ very greatly from the management of industrial enterprises. That is true for example in the management of personnel and in the problem of the optimal utilization of space and equipment. It is naturally in those aspects, first of all, that modern management techniques have been used. In many American universities, computers are used in centralizing and keeping up to date the data concerning the various activities of these institutions and establishing time schedules which permit optimal utilization of teaching time, buildings, laboratories, workshops and sports equipment, while respecting the preferences and constraints of the students. Also, PERT is currently used for time-phasing of complex research projects and for carrying out large university building programmes.

We shall not go farther into these techniques because their use in education is not substantially different from what it may be in other sectors and consequently does not give rise to specific problems. We prefer to confine ourselves to those techniques the application of which to educational planning gives rise to difficulties or problems. That is why we shall examine in particular the use of cost-benefit analysis, the development of institutional research and the use of mathematical models.

A. Cost-benefit analysis and educational planning

Cost-benefit analysis has been widely used in measuring the efficiency of education by considering it as an investment and by relating its costs to its possible benefits. Numerous studies have already been made relating to countries as diversified as the United States, the United Kingdom, Israel, Chile, India and Uganda.

Several authors in the United States have shown, for example, that the rate of return is especially high in vocational retraining programmes organized for the unemployed to facilitate their adaptation to other employment. 1/

In the United Kingdom, Professor Blaug 2/ reached the conclusion that in higher education the private rate of return (estimated at 14 per cent in the case of men) is substantially higher than the social rate of return (6.5 per cent). That difference is due to the large share of public funds in the financing of higher education, which includes scholarships to students. Considering that difference the question may well be raised as to whether it would not be justifiable to convert student scholarship awards into loans to be paid back in the future.

That is the kind of decision for which clarification could be provided in advance by a cost-benefit analysis. It should be noted however that cost-benefit analysis, as applied to education, is concentrated only on economic benefits. It is therefore customary to start by enumerating the benefits and the costs which are not included in the evaluation.

In fact, the basic assumption on which cost-benefit analysis is founded, when it is applied to education, is a dual one - on the one hand, that earnings of the individuals constitute an adequate measurement of their contribution to the product and, on the other hand, that lifetime earnings differentials between individuals can be attributed very largely to differences in educational attainment. The weak points in that assumption are quite evident.

What is more, cost-benefit analysis as it is applied to education is reduced to a mere calculation of the rate of return, i.e. a mere calculation of financial profitability. Paradoxically enough, cost-benefit analysis was originally advocated precisely as a remedy for the inadequacies of financial profitability calculation and in order to take into account all the factors neglected in such a calculation. It should in particular allow for indirect costs and benefits, or what may be called external economies and dis-economies.

But, as Professor Mark Blaug wrote :

> 'We simply do not know at present how to accurately measure benefits of education that are not directly reflected in the enhanced lifetime earnings of educated people, and all economists, whatever approach they have adopted towards educational planning, have been guilty of ignoring these indirect benefits'.

He adds, however, that :

1/ M. E. Borus, 'A benefit-cost analysis of the economic effectiveness of retraining the unemployed', Yale Economic Essays, Vol. 4, No. 2; G. G. Somers and E. W. Stromedoerfer, 'A benefit-cost analysis of manpower retraining', Industrial Relations Research Association Proceedings December, 1964.

2/ M. Blaug, 'The rate of return on investment in education in Great Britain', The Manchester School of Economic and Social Studies, September, 1965.

> 'The overwhelming advantage of rate of return analysis is precisely that it is cast in the mould of cost-benefit analysis and thus automatically encourages efforts to improve measurement of the benefits of education ... The point is that the very framework of cost-benefit analysis directs one's attention to critical gaps in data; and that is the chief merit of the framework'. 1/

We can suppose that more success will be obtained in the future in evaluating the indirect costs and benefits of education. Nevertheless, it will still be true that cost-benefit analysis can constitute only one criterion for the ranking of different projects. It does not offer any information which may explain why the utilization of resources can be either more or less efficient.

B. The development of institutional research

It is only recently that institutional research has developed, and the development has taken place mostly in the universities of the United States. While in 1955 institutional research was systematically organized in about ten American universities, by 1964 that figure had reached 115 and the number continues to increase.

Although institutional research can take very diversified forms, it can be defined as a special effort made by an organization to study itself in order to accomplish better the objectives which it has set for itself. Institutional research therefore consists essentially in a systematic analysis of the operations of the organization and of the efficiency with which it utilizes its resources. The purpose of the analysis is, naturally, to enable the institution to decide on the policy to be followed, on the basis of the most complete and accurate information possible and not on the basis of mere impressions or preconceived ideas.

Considering the number of fields on which institutional research can be brought to bear, the kinds of decisions which it may influence are widely diversified. In fact, authors are far from being in agreement as to the exact limits of institutional research.

> 'Actually there are widespread disputes in higher education as to what institutional research is. In the past two principal schools of thought on this subject have attracted considerable support. Some have felt that institutional analysis ought to deal primarily with administrative or housekeeping problems, space utilization and the like, thus remaining in effect a form of operations research as applied to the business of campus management. Others have argued that it should not be confined to the 'building and grounds side of higher education but should go to the heart of the matter and appraise what is happening in the classroom'. 2/

1/ M. Blaug, 'Cost-benefit and cost-efficiency analysis applied to education' in Budget Programming and Cost-Efficiency Analysis in Educational Planning, Paris, OECD, 1969, pp. 181 and 184.

2/ F. Rourke and G. Brooks, The managerial revolution in higher education, Baltimore, John Hopkins Press, 1966, p. 48.

In reality, as was brought out in the investigation conducted by Rourke and Brooks1/, the role of institutional research varies enormously from one university to another. At the University of Rhode Island, the Institutional Research Bureau and its director play a decisive role in the decision-making process. It is the opinion of the President of the University, in fact, that the director of the Institutional Research Bureau should be his closest adviser. He goes still further by arguing that the position of Institutional Research Director is an excellent training-ground for presidential aspirants.

In the University of Northern Illinois the situation is somewhat similar; most of the key decisions taken in recent years having resulted directly from studies conducted by the Institutional Research Bureau.

However, the Universities of Rhode Island and of Northern Illinois are relatively exceptional cases. In general, institutional research departments limit their functions to gathering facts and analysing them, but in so doing they are already playing an important part in the process of decision-making. As the director of an Institutional Research Bureau said :

> 'Gathering facts for their own sake is senseless. The facts must be evaluated so that sound decisions can be made. This office does not make decisions, it collects, analyses, reports and sometimes recommends. I feel this makes me a participant in major university decisions'. 2/

In short, institutional research constitutes a method of studying the operation of the system, and a method which allows the system to be studied from the inside, as it were, by the examination of its component elements. Simulation and model-building are motivated by the same intention, but the approach is somewhat different. The emphasis here lies not on a detailed analysis of the various components of the system, but rather on an over-all view of the links and relationships existing between the various components.

C. The use of models in educational planning

Mathematical models have been utilized in educational planning only during the last few years. Their essential role is to make it possible to estimate all the effects and repercussions of the choice and implementation of a particular policy on the system as a whole. A costing model, for example, should be able to show all the financial implications of a given option in regard to the educational plan.

The scope of these mathematical models varies in different countries. In Denmark a model covers the entire educational system and makes it possible to forecast the number of pupils or students at all levels of schooling, and hence to estimate teacher requirements and total salary costs. These estimates and forecasts serve as a basis for the preparation of a three-year budget.

1/ F. Rourke and G. Brooks, op. cit., Chapter 3, pp. 44-67.

2/ F. Rourke and G. Brooks, op. cit., p. 63.

In Norway, models are made separately for each level of education. They show the cost effects of variations in the number of pupils or students, in the number of hours of instruction per week, in the salaries of teachers and professors, in the size of classes etc.

It appears, however, that models can play an especially interesting part at the university level. Owing to the many different kinds of instruction given by a university and the diversity of its activities, efficient direction and management of the institution requires definite knowledge of the relationships existing between the different departments and a steady flow of information covering the operations of these departments.

A model capable of simulating the operation of the university can therefore be extremely useful. It can show all the possible effects of a change in the general policy of the university. Moreover, the size of the university and the possibility of gathering complete information on the operation of the different departments make it possible to set up relatively detailed models which are more or less true to the institution which they supposedly represent.

It is especially in North America that such models have been developed. They are used, for example, in the Universities of California, Purdue and Michigan - but it is the experience of the University of Toronto which strikes us as being the most interesting.

A pilot model was set up in 1965 to simulate the operation of the College of Science. This first model, which was known as CAMPUS I (Comprehensive Analytical Methods for Planning in University Systems), served subsequently as a basis for a twofold development. The first of these was its extension to the entire complex of the University of Toronto in the form of CAMPUS II, and the second development, which is in a certain sense more interesting, consisted in the use of this methodology for planning the reorganization and development of the College of Medicine and the University Hospital System.

This research, conducted by Professors Judy and Levine, is being carried forward and is expected to culminate shortly in the construction of a CAMPUS III model which will be more general and flexible enough to be applied to a wide range of universities and to the establishment of a Planning-Programming-Budgeting System for institutions of higher education.

It can be seen that experience in the utilization of simulation models in educational planning is still too recent for definite conclusions to be drawn. It nevertheless appears, on the basis of the results so far obtained, that models are destined to play an increasingly important role in educational management and in educational planning.

Conclusion

The introduction of new management techniques into educational administration and planning has not been accomplished without incurring a certain amount of hostility or without giving rise to some objections.

The objection which is most commonly made is that these techniques are essentially quantitative. It is agreed that they increase the amount of information available and that they theoretically facilitate better decisions. But this improvement in the way of informational data involves only the quantifiable aspects, and by putting the major stress on these aspects we run the risk of attributing too great an importance to them and, consequently, of neglecting other aspects which may be equally important.

Another objection, which is more subtle because it is indirect, is that these techniques are complicated and difficult for a non-specialist to understand and use. A non-specialist who desires to use them is therefore obliged to appeal to the specialists for assistance and to put his trust in their analysis. That state of dependency may lead to two dangers, which are to a certain extent combined.

The first danger is what Herbert Simon has called the aphasia of the mathematician :

> 'Some relatively simple management problems turn out to be far too large for even such a powerful tool as linear programming. It is easy for the operations research enthusiast to underestimate the stringency of these conditions. This leads to an ailment that might be called mathematician's aphasia. The victim abstracts the original problem until the mathematical intractabilities have been removed (and all semblance to reality lost), solves the new simplified problem and then pretends that this was the problem he wanted to solve all along. He expects the manager to be so dazzled by the beauty of the mathematical results that he will not remember that his practical operating problem has not been handled'. 1/

The second danger has been described in the following terms by Rourke and Brooks :

> 'Some university administrators have charged institutional research directors with being overly preoccupied with the niceties of methodology to the point where their studies lack application to practical university problems. Several of the university officials questioned in the course of this study complained that institutional research directors were far too much concerned with turning out reports that would bring them esteem in the eyes of their statistically oriented colleagues and not enough interested in undertaking studies that would contribute to the solution of actual problems with which the university was confronted'. 2/

Although these objections are to some extent well-founded, the dangers which they mention would appear to be considerably overrated. Where they have so far been applied, the new management techniques have not, in any instance, caused the regular top-level administrator to be replaced by specialists in these techniques. They have, however, changed to some extent the behaviour of these administrators, and in particular their way of examining and solving their problems. Far from being simply a method for weighing and measuring all the possible effects of a given policy, the new management techniques reflect a state of mind and a way of looking at things. They are used to apply a

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1/ Herbert Simon, op. cit., p. 72.

2/ F. Rourke and G. Brooks, op. cit., p. 52.

rigorous method to the complex process of identifying problems and seeking their solution. They aim at the deepest and most complete analysis possible. It is doubtless impossible to introduce all factors into this analysis and it doubtless happens that the 'optimal' solution to which the analysis leads is not adopted and that another solution is preferred, precisely because of the necessity of allowing for factors which have not been included. But in that case it is at least possible, by comparing the two solutions, to measure the additional costs involved in these factors, whether they be political or of some other character.

JOB IDENTIFICATION AND O AND M TECHNIQUES IN EDUCATIONAL ADMINISTRATION

by R. W. Silversides

PREAMBLE

I am delighted at being given the opportunity of expounding upon the 'virtues' of Organization and Methods, although, as you may well be aware, there is a considerable 'wind of change' blowing through the management services corridor. It is the view of some that O and M has a limited future and that other more sophisticated or developed management service techniques will replace it. In case you are not familiar with the management services world generally, the following are just some of these new management services skills which are being prosecuted with vigour on both sides of the Atlantic:

Work study

Now developed well beyond the days of time and motion study.

Operational research

Seen originally as the mathematicians' world but now regarded by some as having an application to any work situation. Some operational research units even include psychologists.

Cybernetics

A development of operational research. Particularly concerned with the application of the principles of re-activation.

Computer applications

Now extended well beyond financial processes.

Ergonomics

The ergonomists are modest but are making an increasing contribution on the determination of efficient working conditions.

In addition to the above, there are many sub- or ancillary techniques, e.g. cost-benefit analysis, discounted cash flow, issue mapping, network analysis and planned programmed budgeting.

A whole new vocabulary is being created for each of these new techniques, which is causing increased confusion to those at the receiving end. Targets, goals, performance, programmes, etc. can, as a character says in 'Through the Looking-glass', be made to mean almost anything you want them to mean.

There is an urgent need for the establishment of some lingua franca, preferably on an international basis.

However, in spite of these many developments there is still a role for O and M, the techniques for which have at least stood the test of time. In fact, none of the other management services is so well equipped as O and M in ascertaining, accurately, the facts on a work situation, the subject of a study.

I shall therefore be confining this paper to O and M. The examples to which I shall refer later are not hypothetical. They are all real, and I should be very surprised indeed to learn that improving the efficiency of administrative and clerical work in all organizations, including education, has been fully achieved without any assistance from O and M.

O AND M TECHNIQUES

It would be impracticable to attempt to describe O and M techniques in any detail and the extent of their application would, of course, be dependent upon the terms of reference. However, the following is an abbreviated description of the basic techniques:

Preliminary survey

This is a brief study to ascertain the nature of the administrative structure, to identify work or activities by groups or other classifications and to verify the manpower resource in terms of numbers, location, etc. An outline structure would be obtained at this stage. (An example will be projected.) It is unlikely that a preliminary survey would reveal serious underworking, although a party of O and M officers when visiting the Vatican asked the Pope, 'How many people work here?', to which the Pope replied, 'About half of them'.

Fact ascertainment

This consists of ascertaining, from individual employees by personal interview and from other sources, full details of the procedures and quantities of work. It takes a considerable amount of time, requires training and experience and has its own sub-techniques.

Fact recording

Facts, when fully ascertained from all persons concerned with an identifiable activity are recorded in various ways to illustrate, in particular, work flow and other important aspects. (A flow chart will be projected at the seminar.). In addition to flow process charting, other forms are used to illustrate, diagramatically, quantities of work and especially periodicities, i.e. to determine whether the work has a regular or irregular flow.

Fact analysis

The whole purpose of fact analysis is to find alternative ways of performing the work which will result in it being done quicker or better - or preferably both. Many analytical techniques are used but one, known as procedure questioning, is an example. The principal questions used are:

WHAT? This is to establish the purpose of the work and whether the purpose is being fulfilled. It is fundamentally an objective question. A female clerk who spent a lot of time making entries in a columnar register (the purpose of which was obscure) was asked 'What is this register used for?' She replied 'I use it to sit on when I want to do some typing'.

WHERE? This may call for a whole series of sub-analyses. The question could be whether the work is in the right room, i.e. whether it is interrelated to other work but physically divorced from it. Or it could be whether the work is performed at the centre but could be more efficiently achieved at the perimeter.

WHEN? This is a time-cycle question. The work may have a time cycle of a month but could be more economically performed, with equally good results, by using three months as the time cycle. In some clerical activities, however, the time cycle may have equal significance within the span of a day. A logical sequence of clerical activity within a short period of time may have a considerable effect on productivity. Motion economy would be a sub-analytical study.

HOW? This is the basic and detailed methods question. It is not only aimed at maximizing the use of source documents and avoiding unnecessary back-tracking but is also of significance in considering the use of mechanical aids which can range from an adding machine to a computer.

WHO? With the greater use of specialized skill in administrative and clerical work it becomes increasingly important to ensure that all work is appropriate to the person's skill. Rates of pay are normally a reflection of a person's skill and nothing would be more wasteful than to use a highly skilled person on routine work.

WHY? A fundamental question intended to establish whether the work needs to be performed at all. It has, of course, a distinct relationship to the question WHAT?

The completion of all fact analysis is not, of course, the end of an O and M study. The building up of alternative and better methods of working then follows and, finally, a report. The report is a very important document as it is essential that it should prove that the proposals would lead to greater efficiency and usually to economy.

After the report has been considered and the proposals adopted, implementation and follow-up service would be required from the O and M unit.

EDUCATION ADMINISTRATION AND O AND M

The preliminary survey already referred to would almost certainly reveal that the work of an education administrative organization would fall into two main categories. The subjective group would be identified with elements of the educational pattern, e.g. primary, secondary, further, higher. The second category, known as functional, would not be identifiable with any particular subject but would be seen to be the support role necessary throughout the entire subjective field. Some examples of functional activities would be supplies, building maintenance, transport, staffing, finance, etc.

It is true that in some education organizations the functional activities would be in direct vertical relationship to the subjective. For example, a group of persons responsible for primary school administration might also provide such schools with their supplies, transport, staffing, etc. Similar functional provisions would also be part of the administrative structure of a group responsible for secondary education. In other educational organizations, however, the functions would be almost entirely divorced from the subjects.

It would not be proper in a paper of this kind to attempt to expound at great length on the organizational structure of education administration. There are many alternatives. Reference to some organizational problems will be made at the end of this paper.

Whatever the nature of the existing organization may be, the functional aspects would certainly be identifiable and would be worth some detailed study as they are the kind of activity for which O and M studies can produce really worthwhile results in terms of over-all efficiency.

The following are some examples:

Supplies

A very wide variety of materials is required by all educational establishments. These would range from laboratory equipment and pianos to dusters and towels in the washrooms. The capital or non-consumable materials might represent the largest sum of money but the

consumables certainly generate the most administrative and clerical activity. The main category of consumer goods required by all schools would include textbooks, stationery, cleaning materials, fuel, crockery, etc.

There are many alternative means for ensuring that schools receive these materials when required and when needed and in the quantities required. Two main alternatives likely to be encountered in any educational organization might be summarized as follows:

> (a) The Education Office arranges a contract(s) by competitive tender, thus ensuring that the goods are of the lowest price commensurate with the quality required. Schools send their requisitions (either at predetermined intervals or as and when required) to the Education Office where they are examined for reasonableness. A clerk then prepares a formal order to be passed on to the approved contractor who supplies the goods direct to the school. The account is received by the Education Office who send it to the school concerned to confirm delivery. The school returns the invoice to the Education Office who certify the account for payment. (It is assumed that there is a standard process for the payment of all accounts.)
>
> (b) The Education Office arranges contract(s) similar to those referred to in (a) but maintains stocks of some, if not all, of the materials in an Education Office store. On receipt of requisitions from schools the Education Office sends the goods to the schools (by post or by using the Education Office transport). This procedure would not call for invoice certification but almost certainly would involve some system of debit and credit transfers between the appropriate accounts.

The analysis of procedure (a) would show that, in addition to clerical work in the schools, there was a considerable amount of clerical work in the Education Office, together with the cost of stationery, postage, etc. The analysis would also show that the examination for 'reasonableness' was to a large extent notional and that the Education Office activity was mainly concerned with transcribing requisitions into formal orders with the consequent further flow of paper already described.

Alternative (b) would almost certainly show a greater saving on the contract price because the Education Office had placed orders for large quantities to be held in their own store. However, the cost of maintaining a store with all the ancillary requirements of stores control, together with the cost of conveying the goods from the central store to the schools, would probably show that the greater purchasing discounts were completely offset by the cost of maintaining the store.

A third alternative would, therefore, emerge from the O and M analysis. The arranging of central contracts would be accepted as the most economical and satisfactory means for achieving the lowest prices. If, however, schools were allowed to place orders direct to the contractors (as notified by the Education Office each year) and if schools

received invoices direct from the contractors and certified them for payment by the Education Office, all other clerical work in the Education Office could be discontinued. It might be argued that this alternative system would call for more clerical activity in the schools but this would not only be very small in terms of time per order but, dispersed over all the schools concerned, would be infinitesimal.

It might also be felt that proper financial controls by the Education Office would be relinquished, but there is ample evidence to show that schools could themselves effect a satisfactory financial control within the limitations determined by the Education Office by the simple addition of invoices or priced orders.

The financial saving which could be achieved by this system would, of course, be dependent upon the size of the Education Authority organization. But an average English Education Authority could expect net savings of the order of £6, 000 to £7, 000 per annum.

Staff advertisements

Advertising staff vacancies is only one part, and a small part, of the staffing function. As in the case of all functional activities there are many alternatives. The O and M study would have shown that the first person to be informed of the resignation of a teacher or other employee in a school would be the head teacher. It may well be that the Education Office would require to know of the resignation for the purpose of their staffing records, payroll, etc. but the activity required for the purpose of ensuring that an advertisement was placed in the proper newspapers or journals would be a sub-activity of the staffing records section of the Education Office or would call for data transmission to another section of the Education Office responsible for advertisements. At this stage, the determination of the wording of the advertisement would be made and the advertisement placed, either direct with the newspapers or journals to be used, or through advertising agents who themselves would place the advertisements.

The O and M study would show that, for the majority of the staffing vacancies, standard wording was being used and that the newspapers and journals were almost always the same for each category of employee.

This being so, it would follow that the Education Office was only a part of the communication system between the school and the newspaper or journal. The placing of advertisements by schools direct with advertising agents would call for practically no additional work in the schools, would reduce the delay in the advertisements appearing and would save the whole of the clerical transcription in the Education Office.

The O and M study would probably also produce further economies in wording.

In an average English Education Authority the total savings would be of the order of £3, 000 to £4, 000 per annum.

Maintenance of buildings

The work involved in maintaining schools and other educational establishments falls into two main categories:

(a) planned maintenance, e.g. decorations, improvements and alterations;

(b) day-to-day repairs which could not have been foreseen.

The bulk of the maintenance money would almost certainly be incurred in respect of category (a) but the amount of administrative and clerical work (as distinct from technical and professional) would be considerably less than that which would be involved in controlling the day-to-day repairs.

There are many alternative procedures for day-to-day repairs but a fairly typical one would be for a school to communicate (in writing or by telephone) with the Education Office describing the repair requiring attention. These minor repairs would include, especially in the winter months, burst pipes, dripping taps, leaking radiators, broken window-panes, door locks, blocked drains, etc.

On receipt of the request from the school a clerk in the Education Office would then prepare an order for the work to be done (as described by the school) and pass this order either to a contractor or to another officer in charge of the gang of men responsible for school repairs work.

The O and M analysis would show that the procedure did not give rise to any effective controls in the Education Office. It would be impossible to limit the number of repairs to burst pipes, merely because there was insufficient money in the budget. Such repairs would have to be attended to instantly. Equally, it would be impracticable for anyone in the Education Office to place an order for work to be done other than in the way it had been described by the school.

So far as the subsequent invoice process was concerned this would be similar to that described for supplies, i.e. it would include a considerable amount of back-tracking between the Education Office and the schools before the invoice was certified for payment.

Therefore to allow schools to place orders direct with approved contractors (or with the direct labour force) for a whole range of minor repairs would not involve any greater expenditure, would reduce or eliminate the time lag and would enable reductions to be made in the clerical staff employed on this work in the Education Office.

In an average Education Authority, the savings would be of the order of £2,000 to £3,000 per annum.

Pay certification

All pay certificates would be most likely to originate at the source, i.e. the school. If the calculation of gross and net pay and the making of salary and wages payments were the duty of an accountant or treasurer (whether located in the Education Office or not) it would be essential for that person to have full details of all employees, including basic rates of pay, conditions, etc.

An O and M survey would, first, establish that all pay certificates were routed through the Education Office and the purpose of the activity (in the Education Office) would be carefully analysed.

The application of the procedure question, already referred to, would almost certainly establish first that there was a considerable element of duplication of records between the Education Office and the accountant and secondly that the examination of the pay certificates in the Education Office was confined to verifying the arithmetic which had already been verified at the school and was subsequently verified by the accountant/paymaster.

It would be clear, therefore, that if pay certificates were routed direct from school to accountant/paymaster no additional work would be required in the school or accountant's department and there would be a reduction in transmission time.

The savings in the Education Department would be, for an average English county, of the order of approximately £2,000 to £3,000 per annum.

CENTRALIZATION VIS-A-VIS DECENTRALIZATION

It might be felt, from the examples given, that the essence of O and M in its application to education administration lies in the determination of what should be performed at the centre and what could be equally well performed at the perimeter. Although it would not be true to say that O and M suffers from this kind of limited vision, it is nevertheless submitted that there is very considerable scope for achieving savings in education administration cost by a thorough examination of this question.

In addition to the functions already described in some detail, the same benefits could, mutatis mutandis, be achieved in respect of many other functions.

It is at this point, however, that some further thought is required to be given to the question of centralization or decentralization. The strongest argument for undertaking an activity at the centre is either because it is considered to be the only place where the skill required exists or because the aggregation of the work produces a maximization of productivity.

In the examples given there is ample evidence that the type of clerical skill or even the purpose of the activity at the centre does not result in benefits of this kind. In fact clerical skill might be over-rated.

It is the advent of the third-generation computers, however, which gives rise to some new thought on centralization. The larger and more expensive the machine the more it becomes necessary to aggregate the work at some centre where such a machine could justify its existence. It could not be considered prodigal to provide every school with a typewriter or a duplicator but it would require a very large school indeed to justify an accounting machine and only a giant technical college might establish a case for a computer for teaching and ancillary purposes.

It is probable, therefore, that in order to make the greatest use of modern computers, some data, at present only existing at the school level, would have to be centralized in order that it might be processed to the benefit of effective education administration. For example, it might not be necessary for the Education Office to know, from week to week, the number of pupils in schools and certainly unnecessary for them to have any more details of age, sex, etc. The ability of a computer to process such data in a way which would facilitate the taking of decisions by the Education Authority at regular and predetermined intervals might well require a fresh approach to this problem.

However, the real benefits of computers to be derived by administrative structures should take the form of feedback information from the computer. Thus data transmission should, so far as possible, be direct from source to computer with feedback to the Education Office for executive decisions. This would lead to the further elimination of clerical records and processes in the Education Office and establish its proper role, uncluttered by tedious and non-dynamic activity.

CONTROLS

All this leads, inevitably, to an examination of the whole purpose of controls as an essential feature of education administration; in fact they might be regarded as the administrative raison d'être.

The activities, the subject of administrative controls are many and various with an equally wide range of control mechanisms. It would be impracticable to categorize all the many and usually cogent reasons for controls but the following would certainly be advanced in any education administrative organization:

(i) to ensure that all parts of the organization, e.g. schools, were 'kept in step' and that none of them was allowed to enjoy facilities or privileges greater than those allowed for comparable schools;

(ii) that no employee within the organization, e.g. head teachers, exceeded their powers and duties;

(iii) that monies determined for the performance of the activities were not exceeded.

The basic problems to be resolved in the establishment and maintenance of control mechanisms and vitally affecting the use of administrative and clerical manpower are:

(a) whether to control the 'issue' or the 'user':

(b) whether to control the norm (viz the situation represented by the substantial majority) or to control each situation 'on its merits'.

A very simple example of the alternatives of control on 'issue' or 'user' could be materials required by a clerk in the office. He might be told that he could have six pencils a year - no more. Or he might be told that, when his pencil is worn, he should produce the stub to his supervisor who would then issue him with another.

So if both the control mechanisms are used, the number of pencils to be issued is predetermined but the clerk still has to produce each stub for each fresh issue.

If this very simple example is extended to schools it would be immediately apparent that the dual control would achieve no more efficiency or economy than one or other of the control mechanisms. It would simply require nearly twice the administrative and clerical manpower.

Controlling off the 'norm', or management by exception, is more difficult to define but evidence of attempts to control all possible variations as well as the norm would emerge from an O and M survey. It would be seen to clutter the procedures, the form, the records, the registers, etc.

An example would be the health of school children. What was to be accepted as 'normal' would have been predetermined and doctors and others would examine for the purpose of ascertaining the abnormal. But the massive returns or backing records could include an immense amount of detail which merely showed that a child was normal. Thus identifying the abnormal for action purposes would be made more difficult, the fields of search would be widened, clerical errors would be more likely to occur and delays would increase.

All controls should be the subject of regular, if not continuous, review and with or without assistance from O and M. Their purpose should be dynamic and objective and not based upon concepts both outmoded and outdated.

ANCILLARY METHODS

All that has been said so far is related to the methods studies which form an integral part of a comprehensive O and M review. The ancillary or supporting clerical activities are also studied. Two are worth mentioning:

Filing

An office filing system or systems can so easily be regarded by those concerned as merely a repository for letters and other papers upon which action has been taken. An O and M study would not only reveal the inefficiency which can stem from a badly designed or fragmented filing system but would also highlight the amount of time spent by employees, of various levels, in searching for letters which could not be easily traced.

The arguments in favour of a centralized filing system in an Education Office are overwhelming unless such an office has to be accommodated in several different buildings. It would be unlikely that only certain administrative or clerical staff used files peculiar to them and in a good filing system it is essential that all persons, of whatever level, shall be able to ascertain the full history of any situation without having to refer to colleagues who may have other portions of the history.

The O and M contribution to filing would be comprehensive, i.e. a proposed new system would be described and determined in detail together with proposals for the storage of obsolete documents and the provision of a broughtforward service, etc.

Revisions to filing systems would probably not show any direct labour savings but would certainly improve the work flow and, in many cases, provide a better service to the general public and other interested parties.

Forms design

In all the procedures studied during the course of an O and M survey it would be unlikely to find that there were no forms. Good forms design is a specialized O and M skill and it would not be possible for me to describe this in any detail. It would certainly not be true to suggest that O and M aims at getting rid of forms: in fact, in many cases, new forms may be proposed in order to eliminate written or typewritten material. A good range of well-designed forms is the very essence of first-class clerical processes, although an O and M study showed, in one case, not only a very large number of forms but one, which consisted of a plain piece of paper headed 'Form to be used when no other form is applicable'!

WORK MEASUREMENT

Work measurement, by any definition, has already reached out beyond the confines of the manual worker. In fact it could be upheld, by some, that it has no frontiers, no limits. That it is as feasible to measure the work of professional people, such as lawyers or doctors or teachers, as it is to measure the work of a man who digs holes in the road.

It would be quite impracticable, in the limited time available, to expound upon, or explain, the increasing range of work measurement techniques. But because the application of them to clerical work (including Education Office clerical work) is now being vigorously pursued, they are worth a brief mention.

An O and M study of an Education Office clerical structure would be unlikely to result in all clerical and administrative procedures being changed. Many would be found to be efficient. Work measurement would therefore be applied:

(a) to work as performed (no changes proposed);

(b) to proposed revised methods of working.

The first application might take the form of averaging or rated activity. It is probable that an increase in productivity of between 10 per cent and 30 per cent could be expected.

The second application would take into account the labour savings to be achieved by revised methods but would produce a further saving by requiring an increase in productivity as well. Thus, if the revised methods showed a saving of 25 per cent the total saving would be between 35 per cent and 55 per cent.

Identifying the work elements would be the first essential and the use of predetermined motion time standards would be limited. However, typing is a simple example. Line or tap measurement would be the predetermined standard. The following results could be expected:

	Salaries
(a) 35 shorthand typists	£20,000 per annum
(b) conversion to audio typing (reduction of 35 shorthand typists to 24 audio typists)	£13,000 per annum
(c) application of line production standard (24 audio typists reduced to 21)	£11,000 per annum

Cost of audio equipment would have to be set off against the savings but the equipment cost would be not more than £1,000 per annum.

Does work measurement in the office mean that financial incentives must be awarded for determined increases in productivity? It would be too early to give a categoric answer to this question but there is already ample evidence that the 'bonus incentive motivation' attitude

(which is regarded as the essence of manual workers bonus schemes) could not only be expected of clerical workers but would actually be expected by them.

Could this be extended to education administration? There might be some difficulty in identifying the work elements of senior administrators but it would be possible to establish some workload standards however indirect they might be. It could be held that the quality of the work would suffer from this approach. But even quality may have to be included in the work measurement formula. What teacher would not claim that he could do a better-quality job if he had less pupils. How many less?

Work measurement has a long way to go. It is certainly going!

PROBLEMS PECULIAR TO EDUCATION ADMINISTRATION

The need to achieve an even or equitable work flow has already been referred to. Many O and M proposals are aimed at achieving this in order to overcome the staffing problem. Too often a study would show that the staffing provision was based upon peak load periods.

This problem is particularly marked in education administration. The school holidays could amount, in total, to fourteen weeks a year and the effect upon the workload in the Education Office during this period would be most marked. In addition, an important communication point, viz the school, would cease to exist during the holidays and many procedures would cease to operate.

Even allowing for administrative and clerical staff holidays there would still be a balance of ten/eleven weeks of the year when they were at work and the teachers and pupils were not.

It is difficult to find a completely satisfactory answer to this problem but the engagement of a proportion of the clerical and typing manpower on a 42-week basis instead of 52 would certainly show some savings and would relate that resource more directly to workload requirements.

The second, and particularly difficult problem, could be described as 'reconciling the individual with the pattern'. Some reference has been made to establishing the norm or management by exception. This would not only be necessary for the less personal aspects of the service, e.g. maintenance, but even for the very personal, e.g. student grants. To determine every case on its merits would not only call for a prodigal use of administrative and clerical manpower but would be likely to result in almost all decisions being challenged as unfair or inequitable.

An important provision, which would go some way towards meeting this problem, would be to adopt that well known maxim of the Courts of Justice, 'Justice must not only be done. It must be seen to be done'. The standards upon which decisions affecting individuals are taken should be made known to those affected or likely to be affected. Not all would see them as fair, but a great deal of time could be saved in explaining why the decision had been taken. The filing system might not need so much space!

ORGANIZATION

Almost all the illustrations and observations made in this paper have so far been concerned with the Methods part of O and M. I would like, therefore, first to summarize the Methods and work measurement analyses from the point of view of the most efficient organization and, secondly, to return to the relationship between the subjective and functional categories referred to at the beginning of this paper.

The performance of a functional activity at the perimeter, viz a school, saves a considerable amount of communication and avoids back-tracking. It would be nice to include some comments about general semantics. What is disturbing is that, perhaps because the specialized vocabulary is being enlarged, good communication is extremely difficult to achieve. In the example of building maintenance which has been given, a caretaker may describe part of the school in his way, the head teacher gives it a different description and the clerk in the Education Office makes what he thinks is a point of clarification. When it reaches the surveyor or contractor he cannot make head nor tail of it!

The functional work in the Education Office should therefore be confined to that where a central control mechanism is essential or where only the aggregation of the work can achieve the proper use of specialized skill.

What are some of these specialized skills? Figure ability is clearly one of them. Computers may do all the arithmetic, but correlating figures, identifying the abnormal from a scrutiny of figures, absorbing two or more sets of interrelated figures call for an aptitude not possessed by all.

So the first functional grouping of work should be the 'figure' group. This would include salaries and wages, revenue and capital expenditure and general statistics.

A second skill could be called 'report writing'. This would not be confined to reports proper but the correspondence activities. Placing of children in schools, staff appointments, committee agenda and minutes are just examples of the report-writing group.

A third skill is 'recording'. This might appear to be a simple skill but mind/hand co-ordination should not be underrated in the office. A good filing clerk must be accurate but his rate of working would be vitally affected by his mind/hand co-ordination ability.

So the recording group would include filing, staff records, inventories, supplies, etc.

The typing and duplicating skill hardly requires any description.

These aggregations of skills secure first that the administrative and clerical aptitudes can be clearly identified. Recruitment of such manpower should be objective. There should be tests aimed at verifying that appropriate aptitudes are possessed. To recruit a clerk for an Education Office on the vague information that he has certain educational certificates or that he has worked in another office is quite inadequate. It is essential that he should be recruited with a specific and predetermined skill in mind.

The second benefit to be derived from skills aggregation is that it enables the levels of work to be properly determined, i. e. a good 'division of labour' can be achieved. Fragmentation would probably mean that half the staff were doing some work above their ability (and pay) and the other half were spending measurable parts of their time on routine duties below their skill.

A third benefit is that it ensures the proper provision of supervisers. Almost all people require supervision if their performance and the standard of their work is to be properly maintained. Would supervision of functional activities in an Education Office call for training in the subjective background, viz education? Probably not. The functional activity could soon be learned. Supervisory skill should be sought and training in the work given if necessary. Knowledge of the job is not the first requirement of a really good supervisor.

Work measurement could now be applied to activities, the skill requirements for which had been aggregated. The identification of a denominator (or countable unit) is of great significance when applying work measurement. It provides the essential control mechanisms for verifying performance (by individuals or by groups) against the goal or target. The denominator, e. g. number of orders or invoices, etc. would probably vary from day to day but it would be perfectly feasible to assess the performance over a period of, say, one month.

Furthermore, the aggregation of skills would facilitate another important aspect of work measurement and its related job evaluation. The essence of both these techniques would be to establish a fair and proper relativity, viz of productivity and of level of pay.

If time permitted it might be an appropriate moment to expound upon job evaluation. However, sufficient to say that the weighted points analogue approach has proved to be the most suitable for administrative and clerical work in an education organization.

Weighted points analogue consists of identifying the work elements (ground common to work measurement), selecting the appropriate analogue from a comprehensive table of analogues

and weighting it (at par or above) according to the table. The total points scored would then be compared with other posts to establish the table of relativity. It would then be a simple matter to apply an existing pay structure to the relativities.

It should, perhaps, be added that job evaluation would normally be included in an O and M study and would be of particular importance in connection with any changes in methods or organization which stemmed from the study.

It should be fairly clear that, although the functional requirements of education administration have not been exhaustively catalogued, the building up of a functional structure on the lines indicated would maximize the efficiency and economy aspect.

The outstanding question, referred to at the beginning of this paper, is the relationship between the functional and subjective activities.

Subjective work would probably fall into definable groups, e.g. primary, secondary, further, higher and each of these would have its own specialization, e.g. physical education, domestic science, handicrafts, etc.

The purposes of the subjective groups would be twofold:

(a) to examine the educational provisions, to forecast future needs (normal growth), to plan and implement changes in basic patterns;

(b) to determine, on a day-to-day basis, educational problems stemming from the fulfilment of the curricular and on extra-curricular activities.

Assuming the provision of the necessary staff for the functional activities the immediate support required by those responsible for the subjective work would be surprisingly small.

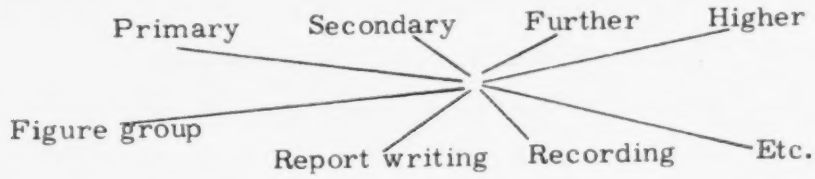
Out of a total staff of, say, 100, 90 or more would be on functional work.

The scope for applying O and M to the subjective work would, therefore, be limited.

The major problem would, however, be the organizational one of relating the functional to the subjective.

First, it would have to be accepted that the persons in charge of the subjects had a greater responsibility than those in charge of the functions. By any job evaluation standards their fields of discretion would be wider, their time span of responsibility would be more significant and their commitment of money and materials (in the long term) greater.

Thus a structure on the following lines would appear to reflect the situation:



But a structure on these lines would be certain to cause a bottleneck and would create problems because those in charge of the functions would each have four 'bosses'.

An alternative would be to provide for a co-ordination of the subjective activities whose role would include relating the functional support to the several subjective requirements.

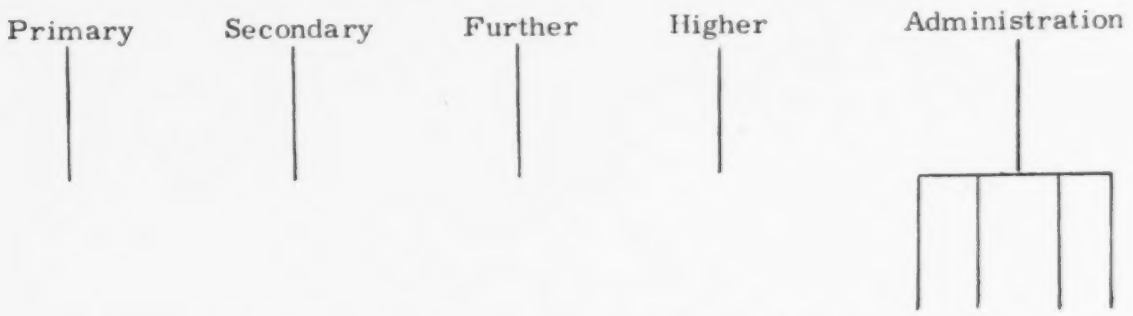
The communication channels for this kind of structure would be unwieldy. Information would have to be fed upwards (to the co-ordinator) before being transmitted downwards to various parts of the functional groups.

It should perhaps be emphasized that communication is of the greatest importance. An intended change in the pattern of secondary education or selection for secondary schools, for example, would call for a radical change in many procedures and records. There have, perhaps, been too many examples in education administration when the best of changes in education have been held up through lack of appropriate alternation in the functions.

A third alternative, therefore, would be to establish a post to be occupied by a person in complete charge of all the functions.

He might be seen as an administrative overlord. He would enjoy a status equal to that of the persons in charge of the subjects, would be in day-to-day liaison with them and would provide a two-way communication system.

The structure would then be:



There could, of course, be many permutations on this pattern but it would provide a very good base.

CONCLUSIONS

I hope I have been able to give you some idea of the contribution which can be made by O and M to improving the efficiency of education administration.

In the final analysis the essence of all management services is to propose alternative means for securing objectives. There is not a 'right' or 'wrong' way of doing anything. But there are some ways that are better than others.

Part IV Teaching the administrative aspects of educational planning

TEACHING THE ADMINISTRATIVE ASPECTS OF EDUCATIONAL PLANNING

by A. Abdul Dayem

Introduction

When educational planning first came into the limelight, care was always taken to point out that educational administration must adapt itself to the new requirements imposed by this planning. It was consequently expected that there would have to be a complete revolution in the structure of the administration and in its responsibilities; it was felt that the functions of educational administration would have to be set out anew and adapted to its new role.

Although theoretically justified, this concern has nowadays practically disappeared. The opposite view is beginning to take over, with the accent being increasingly placed on adaptation and change in the actual planning, the better to adapt to the progress achieved by the administration. The nature and procedures of educational planning are being radically altered because of the ideas and new techniques which have emerged in administration in general and in management in particular. This paper will not be concerned with the theoretical question of whether planning should be part of administration or vice versa; nor with the important role of administration in the different phases and procedures of planning. Nor will it be concerned to show how important is the role of the organizational and decision-making services in effectively carrying out the plan, and reiterating in consequence an idea that has become almost self-evident, i.e. that administration is the main factor in increasing productivity and in the efficient and optimum utilization of resources.

We wish to go further and say that educational planning appears more and more - and should be so treated - as a planned administration, and that administration is consequently tending to become a comprehensive planning technique. Hence educational planning can itself be treated as an aspect of administration, and vice versa. The point at issue is no longer to conciliate planning functions with administrative functions, but the amalgamation of the two.

Administrative aspects of educational planning

1. After experiments had been made in educational planning in several countries over a number of years, procedure and the operational element acquired increased importance. It is obvious in all countries that the main snag in carrying out plans derives primarily from a certain inadequacy, while the plans are being drawn up, in the administrative procedures that are indispensable to their execution. To lay down the successive stages necessary to the elaboration of a plan, fix a time-table for its execution, do the programming that the attainment of its objectives implies, ensure liaison between those who provide the resources and those who use them and, in short, make planning into a whole, and into a series of decisions, of measures to be taken, programmes for execution, or even of plans - this, more and more, seems the very basis of effective and realistic planning. Educational planning is thus reduced to a series of planned projects, stages and administrative procedures. The plan will be 'a series of successive approximations'.1/

2. One of the aspects taken by the problem is the relation to be established between long-term and short-term planning. Administrative procedures are usually annual, monthly or even daily. Planning is rather long-term. From the outset, a way must be found of ensuring intrinsic and organic links between the long-term objectives laid down and the procedures for obtaining them. This means that long-term planning must be convertible into adequate short-term procedures, that these procedures must be present at the very heart of the plan and be more or less immenent to its structure. The plans which are to anticipate the future must be conceived as projects, stages and procedures capable of containing the present, and the administrative procedures used to organize, direct, co-ordinate and control the mechanisms which prefirure the future in the present must match up to what is expected of them in the context of the plan's objectives.

In short, not only must planning and administration pursue the same aims, but they must be undertaken jointly in the continuous process which is planned development.

3. Accordingly, what are known as the new techniques in administration and management must become the main instrument for establishing these organic links between the long-term objectives of the plan and the administrative procedures which are to achieve them. Thanks to them, the separation between planning techniques and administrative techniques become superficial and outdated. A single technique is emerging, valid both for the planning and the administration of education. Administration techniques become in a way techniques impregnated with planning concerns, and planning techniques tend more and more to become practical procedures easily translated into action and capable of converting the plan into a series of plans and programmes.

1/ Unesco, Educational Planning: A Survey of Problems and Prospects. Paris, 1967, p. 159. 'Formulation and implementation of the plan are therefore really a single major operation with which all those employed in national education are intimately associated.'

To illustrate this trend it is hardly necessary to go into all the new techniques of management and administration, since colleagues at this seminar will be doing so. It need only be pointed out that these techniques give grounds for hoping for a complete integration of educational planning and educational administration, rendering planning 'administratable', so to speak and, as stated above, transforming planning into a comprehensive planning technique.

For, as everyone knows, the new management techniques are not only execution techniques but above all are techniques of planning and forecasting. In speaking of the different methods which derive from systems analysis, operational analysis methods, the methods of technological forecasting, the methodology of rationalizing choices, graph techniques - in short all the modern methods for decision-preparing, one is really dealing with techniques for forecasting, planning, or sometimes even perspective planning. Such techniques as support graphs, relevance trees, the Delphi method, critical path, PPBS (Planning-Programming-Budgeting Systems), are not only management and decision techniques but also techniques which can serve in elaborating plans and ensuring from the outset that the plans established can be converted into practical stages and projects. In fact, all that has been done in methodology for several years past with a view to introducing new techniques into management are really ways of trying to improve the quality of decisions by introducing a scientific approach into the methods used for preparing the decisions. They thus establish an organic link between the elaboration of decisions and their execution.

It is incidentally obvious that, thanks to planning, management and administration techniques have themselves undergone a development which better suits them for planning requirements. Some in fact derive from planning and started as planning techniques. Gradually, however, administration techniques which developed especially during the managerial revolution have in turn begun to gain the upper hand over planning techniques. Nowadays, this interaction is leading to a progressive amalgamation of the two.

4. If we take just a single example i.e. budgetary programming (PPBS), now being experimentally applied in education and in other sectors, it can be clearly seen how this new idea of programme plays an important role in the whole process of planning, and how it will change the perspective within which the links between the administration and the planning of education are seen. Budgetary planning, in the form of analytic studies which precede the establishment of long-term plans, or budgetary planning and its execution, provide a clear example of a short and a long-term educational planning tool, i.e. one which contains the seeds both of planning and of administration. It helps to bring into line and integrate the planning aims and the execution programmes, the structure of the objectives and the structure of the principal tool for their attainment, i.e. finance. As the United Nations Manual for Programme and Performance Budgeting points out: 'Between a plan and a programme and performance budget, there are certain structural similarities of form and common elements in the accounting for resource

use.' 1/ If a plan is mainly characterized by the utilization, in a given sector, of programmes and projects as operational units, these features are also those of a budget programme. As a result of the analogies in the form and orientation of operations, the budget programme is particularly suited to the implementation of a plan and the evaluation of progress made in operations provided for under the plan. 2/ Mr. Hirsch 3/ says this most directly when he points out that 'For planning to be capable of implementation the planning process must not end with the preparation of a set of recommendations or plans prepared in isolation from the programmes through which they must be implemented. The mechanism for implementation includes the preparation of programmes in physical and financial terms which ultimately are incorporated in the budget.'

Budgetary planning can thus be taken as an instrument among others which satisfies the needs of 'administered' planning and a planned administration (development administration, to use the fashionable term), and which, in the education sector, can be used to define the aims more clearly (planning oriented towards execution) and identify various possible ways of obtaining these objectives (administration for planning).

In practice, it offers a way of dealing with a well-known situation, namely that in a number of countries any attempt at proper planning is made extremely difficult by the manner in which budgetary estimates are established.

In thus showing up the fundamental links between the plan and the programmes, in clearly showing the important role which the idea of programme plays in the whole planning process, new techniques such a PPBS mark the definitive acceptance of this trend towards a complete fusion between planning and administration. They declare administration, yet again, to be a comprehensive planning technique, one that formed and crystallized inside the communion between the two. If, in short, planning is, in the last analysis, co-ordination in time and space, the effort required must accordingly be primarily an effort of organization and management. P.H. Coombs says so specifically: 'The needed revolution in education must begin with educational management'. 4/

5. Quoting Coombs automatically evokes the world crisis in education and the role in it that can be played by new and efficient educational administration. The fantastic increase in the population of school age and the increasing social pressure on education that has to be reconciled with limited human and material resources have brought educational administration to the

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1/ United Nations, A Manual for Programme and Performance Budgeting, New York, 1967, p. 3.

2/ Id., ibid.

3/ W.Z. Hirsch, 'The budget as an instrument for medium and long-range planning and programming of education', in: OECD, Budgeting, programme analysis and cost-effectiveness in educational planning. Paris, 1968, p. 93.

4/ P.H. Coombs, The world educational crisis - a systems analysis. New York, London, Toronto, O.U.P., 1968, p. 137.

scientific management age which, at the beginning, was exaggeratedly concerned with reducing costs. A second phase thus arrived only a few years back when greater weight began to be accorded in educational administration to systems analysis. The trend is thus more and more towards a new point which implies that administrative procedures, educational methods schools and fiscal structures should be analyzed as systems in the widest sense of the term. This new approach thus helped the transition from the scientific management and cult of efficiency stage to a new era in administration which no longer insists on basing decisions regarding education only on minimum possible cost and optimum financial efficiency. As Bodart and Hennion 1/ point out in a very important paper, educational yield does not depend only on investment but on complex innovatory and regulatory operations.

In thus developing, the new techniques in educational administration, based mainly on systems analysis, take an important step towards re-establishing intimate links between the administration and the planning of education. They in fact try to take on the very rhythm of educational action and seek the essence of the data of education. They aim at influencing teaching and making it more effective by operating on its qualitative and quantitative components and, above all, by considering education as a whole. This comprehensive approach which calls for new methods of both administration and planning is the most evident proof of the progressive fusion taking place between educational administration and educational planning.

Such techniques as PPBS, cost efficiency analysis, the critical path method and others which derive from systems analysis are all types of organization whose object is to improve the general quality and efficiency of education. They start from the hypothesis that present educational planning techniques can be improved by developing analytic techniques which have proved themselves in other sectors.

Seen in this light 'planning is not a process of speculating on probable developments and preparing a theoretical blueprint for meeting needs. Rather is it a process of attempting to determine appropriate goals and objectives, obtaining and analyzing pertinent information that will bring into focus present and emerging problems and needs, and obtaining agreement on steps and procedures that are designed to meet those needs so the objectives can be attained'. 2/

But now, if educational planning suffered at the beginning from the traditional and conservative administrative mechanism of education, is not educational administration, in the new perspective that is opening up, suffering in turn from the now outmoded planning methods and concepts?

1/ N. Bodart and R. Hennion, 'Educational projects and operational methods of prospective administration', working paper for the Seminar on the Administrative Aspects of Educational Development in Africa, Tangier, 21 May - 7 June 1968.

2/ Jack A. Culbertson, "Planning and Effecting Needed Changes in Education." E.L. Morphet and C.O. Ryan, Editors, New York, Citation Press, 1967. P.xiii.

It is true that the new perspective was in fact to a certain extent the fruit of the introduction of planning. It nevertheless had its own methods, originating in the management techniques which have proved effective in other sectors, particularly in industry and in the armed forces. In any case, the main point is not to discover a relation of cause and effect between these new administrative techniques and planning but rather to show their common development towards the same end, their interaction, and their complete fusion.

This long introduction has seemed necessary to reply to the question at issue, the teaching of the administrative aspects of educational planning. Its essential purpose is to arrive at the following conclusion: it is not, in the last analysis, teaching of the administrative aspect of educational planning that should be examined; rather must the whole teaching of educational planning be thought out anew in the light of the new trend towards a more complete fusion between planning and administration. As Eide 1/ points out, planning should be considered as an administrative function. It is an instrument of efficient administration. It has no independent functions in itself, but only as part of the global administrative organization. The planning process, he explains, can only in theory be separated from the execution stage.

What methods of teaching and training, accordingly, are likely to be satisfactory from this point of view?

1. Starting from this unity between administration and planning, planning should first be taught 'administratively', so to speak. The accent must be on the stages, the projects and the administrative organization of the plan. Establishing a time-table for the elaboration and execution of the plan, describing the administrative decisions which must be taken at each stage and at each moment, analyzing all the arrangements and measures to be taken during the different stages, showing the liaisons and relations with all the agencies concerned in the plan - all of these are the procedures which are absolutely central to the teaching of educational planning. Above all it is necessary to analyze the process of elaboration, adoption, execution and evaluation, derive the stages operationally from the comprehensive whole, show the critical stages (not without cause, this expression recalls PERT-Programme Evaluation and Review Technique), formulate the major decisions, so as, finally, to be able to see the whole process in a clear network of properly related actions and interactions.

2. This would appear to indicate using an active method in teaching educational planning, since only this active method can adapt itself to the approach just described and subsequently indicate the administrative quintessence which lies at the root of the planning process. An active method means attempting to initiate students in the real tasks an educational planner has to face. This initiation is made through a hypothetical example which takes in schematic form all the real work of planning and administration that planners normally do. Such an example, describing the

1/ Kjell Eide, "Organization of Educational Planning", In Educational Planning. Syracuse University, 1964, pp. 72 and 74.

planning process in an imaginary country, will no doubt always be hypothetical and incapable of substituting for a real situation. It can, however, be derived as far as possible from a real example, and will in any case better help to explain the nature and mechanism of the planning process than ex-cathedra lecturing. In particular, it allows the practical application of the new techniques of educational planning and administration, and faces students with organizational problems that are a challenge to their inventive spirit. By going into the actual details of the processes and methods employed, the students take part in their elaboration, their development and even in the creation of new methods. They thus find out the attitude of mind behind all of the efforts of research workers and planners to develop administrative and planning techniques.

3. By this active method and hypothetical example, students can be introduced to new techniques of educational planning. To establish a time-table, prepare a plan for the training of planners or administrative staff, survey the state of education in the country, organize a publicity and explanation campaign, lay plans for the preparation of programmes, try out such programmes, etc., students can use such techniques as 'chrono', critical path relevance trees. They are introduced to programming by studying certain sectors of a plan (construction, equipment, training of teachers, etc.) or certain major projects within the plan (primary education, extension of compulsory schooling by a year, science teaching in secondary schools, access to higher education, etc.). They also learn to establish links between programmes and their financing, and to understand the point and importance of programme budgets, the difference between these and functional or traditional budgets, and the internal logic of these programme budgets, which are a daring attempt to link planning with administration. Other methods such as cost efficiency analysis, the Delphi method, or operational research can obviously also find their place in this exercise, this point of concentration. There are various possible exercises for showing the applicability of different operational research methods to the solution of particular problems of school policy. 1/ Other exercises could show the contribution these techniques can make to educational management problems: implantation of schools, organization of school transport, construction of school buildings, allocation of classrooms, recruitment of teachers, student selection, and so on.

Besides these different activities, dealt with as part of the active method, sufficient attention must be given - so far as possible within this active project, or otherwise outside it - to certain problems which more particularly concern the administrative side of educational planning.

1/ Using these methods, pilot projects have been carried out in the United Kingdom, Yugoslavia and other countries on such questions as the structural reform of secondary education, the problems raised by the extension of compulsory schooling, and the criteria to be used in the allocation of resources for investment in technical education.

Administrative aspects of educational planning

1. The structure of the educational planning agencies and their different types must be studied and analyzed. Advantage can be taken of experiments in other countries, choosing the most typical. Experience in the Soviet Union and in France for example, could be particularly useful; likewise that of a developing country.

The structure of educational agencies should of course be studied in both its internal and external aspects. The internal structure will show how the educational planning office is arranged and its relations with the other administrative services of the Ministry of Education. The external structure will cover external links with all the other agencies and services concerned with planning outside the Ministry of Education, and especially with the central economic and social planning service, manpower services, and statistical services.

2. The problem of centralization and decentralization of educational administration should receive particular attention but be studied not as a theoretical problem in itself, but as a problem which has repercussions on education. Emphasis must be placed on the impact of educational planning on this problem, showing how decentralization of educational administration could be considered as the corollary of planning.

3. The administrative pyramid, i.e. the hierarchy of authority and responsibilities, and the different administrative divisions and services also have a special interest. It might be necessary here to go into some detail on problems connected with the psychology of administration, human relations, group dynamics, allocations of authority, delegation of powers, leadership, sociometry and other questions of social psychology, organization and management - but these should always be related to the planning of education. In the same connection, the problem of the training and recruitment of administrative personnel must not be forgotten, but with the accent always on the impact of educational planning on this training and recruitment.

4. Place can no doubt be found, in the practical exercise of preparing a plan for a hypothetical country, for analyzing and discussing questions connected with the participation of society in elaborating the plan. But the subject is so vast and important that it needs particular attention, and treatment apart. It raises such delicate problems as: the participation of professional opinion and of all of society; the role of representatives of certain economic and social sectors; the importance of pressure groups; how to obtain the conscious and effective collaboration of society in executing the plan and so on. All of this no doubt involves the vital and thorny question of democracy in relation to the plan which is administrative, technical and political all at the same time. Hence the more general question of planning policy, which is vital in educational planning and can throw light on the whole role of administration in planning.

5. To crown all, it would seem necessary to give particular importance in training students to the problem of innovation in education in general and in its administration in particular. Indeed, one of the purposes in introducing them to new techniques in educational administration is to arouse this spirit of creation and innovation in them. The world crisis in education teaches

above all that a remedy can be found only by having recourse to the creative spirit, this essential instrument which man always uses when challenged by the limits of his resources. Faced with the growing disequilibrium between educational needs and the means available, the only proper attitude is the creative one of questioning the whole traditional approach to education. The technological revolution, so sought after here, demands above all a spirit of innovation in educational administrators. Their training should be such as to help them to accept this spirit, to give up the conservative usages of traditional administration, and to understand what innovation requires and promises.

The accent, regarding innovation in administration itself, should be concentrated on all the techniques and methods which ensure the efficient utilization of human and material resources (teachers, school buildings, equipment, use of time, school transport, and so on). For this, it is useful to place them in touch with experiments made in certain countries which have established organization and method services (O and M). The main purpose of these services is to keep the administration always up to date and facilitate the efficient and economic operation of the Ministry of Education. By analyzing and discussing with students the functions of these services (better organization, simplification of procedures, best use of administrative personnel, working hours arrangements, better adapted utilization of material and equipment, and so on), they are helped to re-think administrative functions with a view to the innovation which new conditions in education imply in all countries.

In any case, the creation and operation of an O and M service or other innovation unit in the Ministry of Education should always be discussed with the students. As Coombs has said, the teaching systems themselves should be provided with the means to innovate.

However, the students should not be limited to innovation in administration in the moral sense, the problem of innovation in education must be raised in the widest sense of the word, and all the attempts at administrative innovation subsequently related to all of the technological revolution in education. Innovation in education must be shown as the major problem in coming years, made necessary by a number of factors which underline the world crisis in education (considerable increase in school-going population, explosive increase in knowledge, democratization of education, etc.). This crisis demands innovations which challenge the whole traditional framework of education: knock down the classroom walls, operate on the constraints imposed on all education by the fixed relation between number of pupils and number of teachers (pupil-teacher ratio), replace the individual teacher by teams (team teaching), change the idea of the school year, try out auto-instruction methods of teaching, imagine a more polyvalent and flexible type of school architecture, stress the new concept of lifelong integrated education, including the promises it offers and the changes it will make in the whole structure of school and out-of-school education.

The constant concern in all that has been said above has been to show that the teaching of the administrative aspect of educational planning must not only reflect the intimate links between administrative objectives, functions and procedures and those in planning, but also help to achieve a greater unity between the two.

This teaching should set out to prove that all distinctions between the two have only historic reasons which can be dropped and that, to be really efficient and realistic, educational planning must realize that it has no point except as an attitude of mind and a technique which could render educational administration more conscious of its objectives and functions. 1/ Educational administration theoretically has planning functions which it has long neglected. Its responsibilities for scanning and preparing the future are in principle inseparable from its other responsibilities for organization, control, co-ordination and decision. Planning accordingly arrived to recall its veritable role by showing the importance of forecasting, of 'inventing the future'.

But soon after this arrival, planning ceded to the mechanism of its independent development and began to appear as a discipline apart, getting further and further away from the framework it had originally in principle come to serve, namely, educational administration. For a certain time the technical, or even the technocratic, dominated in educational planning, often largely forgetting the main purpose of this planning, which is to change and develop educational administration for the better. Planning contented itself with a theoretical attitude which required educational administration to adapt itself to the newcomer without on its side making the necessary effort to render this adaptation feasible.

Administration, on its side, began to take its distance in practice with planning, began even to doubt its techniques, challenge its realism, and constitute itself as an independent sector where so much that was new had already been tried out. And, in the beginning, the advance in management techniques in various economic and social sectors helped to give backing to this independence. A natural symbiosis nevertheless took place during their almost independent development, and this gradually brought about a return to the normal condition of things, namely, a closer collaboration, and even organic unity, between the two. Planning must have thrown a new light on the role of administration which began to be seen as administration for development. Administration elaborated rational decision-making methods and techniques which could easily be integrated with planning objectives. Planning experience in certain countries had shown the gravity of the administrative lacunae in the established plans, and helped to re-establish faith in a form of educational planning

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1/ As the Unesco document (ED/ICEP 3) prepared for the International Conference on Educational Planning says: "The plan is neither a prediction by an all-wise technocrat nor a political promise; it is a working hypothesis. Planning cannot be the monopoly of a small group during the period of planning, it must be the preoccupation and permanent responsibility of the entire administration". (p. 16)

more faithful to its original intention which, it may be reiterated, is to change education by changing the mechanisms and methods of its administration.

Teaching educational planning (and incorporating the administration aspect in the planning aspect) should help to achieve this return to the normal, and encourage the incipient fusion between the two aspects of a same process. For educational planning could have no other purpose but to come to the aid of educational administration, the better to adapt it to the requirements of economic and social development.1/ There was of course no intention of creating a new authority, but only of developing, aiding and introducing innovations in the one that existed. From this simple, almost tautological point of departure, we start out to give back its primordial role to educational planning and place it effectively at the service of educational administration and subsequently at the service of education itself.

All that educational planning should attempt to do is to aid the administration to become something which ensures the objectives of economic and social development, which elaborates its decisions on rational grounds, which plans, directs and foresees and which, finally, becomes a dynamic agency which can adapt itself to future requirements and prospects.

But the birth of educational planning from economic planning, despite all the advantages, resulted in its growing up a little far from education and from educational administration and this, with other factors, helped to deviate it from its proper aim and encouraged its development as an almost independent technique.2/ When, after attempts to tie planning to existing educational systems, the unfortunate results of this deviation became tangible, and when the purpose then became to re-establish the links between plan and reality, between objectives and their attainment, and to make educational planning the art of the possible and not the art of the impossible - it was all too evident that the difficulties derived particularly from the fact that educational planning had been almost completely uprooted from its proper terrain: education, and the proper administration of education. The importance of administration in educational planning was hastily pointed out, with talk of an administrative aspect (as well as a qualitative aspect) of educational planning. Hence the return to a normal situation in which the problem is taken up again in its original setting. It is education which must be planned, and this can only be done by the infusion of planning into the very heart and mechanisms of the administration, adapting this planning itself to the practical requirements and procedures which the efficient and dynamic administration of education demands.

1/ It will be clear that the term educational administration is being used in two senses which seem difficult to separate from the point of view that is put forward throughout this document i.e. administration as the execution of adopted policies, and administration as the organization of the planning process. The elaboration of educational policy cannot in fact be separated from its execution.

2/ It must be admitted that every new technique such as planning must inevitably pass through a stage of theoretical research and uncommitted study. The great thing is not to remain forever in this stage.

However, the temporary divorce between the planning and administration of education has not been without profit. It has no doubt aided each to bring its techniques to maturity, to see their inadequacies, and to appreciate the advantages of the reconciliation, a reconciliation which is taking place in the most natural way in the world, taking advantage of all the lessons of experience and of the maturity of the two parties. Perhaps we may therefore nourish the hope of seeing a new era in which the two aspects can more intimately unite, and together confront the one single problem which jointly faces them, that of linking educational progress to the needs of economic social and cultural development and the prospects of a new world that is coming to birth.

TEACHING OF EDUCATIONAL PLANNING IN TRAINING COURSES FOR EDUCATIONAL ADMINISTRATION

by John Hartley

To be of value this paper must, I feel, be mainly concerned with our own experience in Reading where we have, since 1962, been offering a course in educational administration for overseas serving officers. The difficulties that we have faced in teaching educational planning annually to groups of students with very varying experience and coming from a wide range of countries will, I hope, be of relevance to members of this workshop and it is my hope that in discussion not only will I receive guidance on how better to cope with those difficulties, but that others with similar problems may also, like a famous fictional hunting character of the last century, Jorrocks, who said when asked why he always looked at the horses in cab ranks, 'You learns a lot of awoidance looking at cabhorses'.

Briefly, since 1962 we have had between thirteen and over twenty students annually for a nine- to ten-month university diploma course. The aim of the course is to provide central and institutional administrators with the opportunity to make a detached assessment of the important difficulties with which they are faced and by study of current thought on administrative theory and practice, and by coming into direct contact with serving administrators in England and elsewhere who are dealing with similar problems, to return better fitted to overcome these difficulties. The course is also intended to enable those who are lecturers in educational administration to reassess the practical value of the courses for which they are responsible and to improve their own instructional material and methods.

The first of our problems is, naturally, selection. We are not completely our own masters over this. Only very rarely can we interview candidates and we have to rely on the recommendations received, usually through the British Ministry of Overseas Development, from the countries from which the candidates come. Most students are supported by technical aid schemes administered by that Ministry. Our basic requirements are that a candidate should have had five years' experience in a senior and responsible post, a university degree or acceptable equivalent, and be certified by his government as either in or destined for

employment in an administrative post. We also require a certificate that each candidate for the course has sufficient command of English to allow him to follow the course satisfactorily, but members of the workshop who have, like myself, worked at both ends as a certifying official in the country of origin and as a certificate assessor in the receiving country, will know what a chancy thing this form of assessment can be. We are, therefore, in getting our group together, immediately faced with the problem that Shukla, for instance, so succinctly describes in his chapter on training educational planners in the World Year Book of Education 1967.

The Reading University School of Education is a comparatively small one, and from its own resources cannot provide the range of teaching necessary for a course of this nature. Considerable call is, therefore, made on the services of staff from other university faculties such as sociology, politics and economics, and we have a small advisory committee chaired by the Professor of Education, with representatives of these faculties as members. About half our teaching needs can be provided by members of the staff of the School of Education. For the other half we depend on other faculties and speakers or seminar leaders from outside, nearly all of whom are serving administrators.

During the first few years of the course, until 1966, the majority of students came from countries that had inherited the British Colonial system of education. Since then such students have been in a minority. This change in clientèle fortunately coincided with the two workshops held here on the training of educational planners, which I attended, and to which two other staff members already closely connected with the course came to join supplementary seminars on the teaching of economics and statistics. This helped us to make necessary changes in the content and direction of the course. The time for attempting to create better educational administrators than we had been, but still in our own image, was to some extent past. It is, therefore, with our experience over the last three years that I wish particularly to deal.

Now I must turn to the subject. We at once come to the highly disputed boundary between where planning ends and administration and management begin. Whilst I shall try to keep within acceptable limits, I shall undoubtedly stray over the boundary. My excuse is that since problems of implementation must be of particular importance in any course labelled administration, I have, in my work with our course, tended to look at planning from the administrative side of the fence, just as I did in my service days.

We consider our first job to be to try to bring home to our students the vital need for effective planning. This now involves trying to overcome a very marked feeling of disillusionment as regards educational planning. This is particularly the case with many of the Latin American students, and those who have had experience in planning units or branches of their Ministries are no exception. They complain of years of hard work, the use of valuable

expatriate expertise, the hours spent in consultation and conferences throughout their countries, and the efforts made at all levels in their Ministries to prepare the returns needed being jettisoned by political whim before the plan that has evolved from all this is even studied. The usual statement that planning exercises are only started up by governments in order to fob off criticism until it dies down is another that is often made. As soon as selections are made, usually in May or June (our course begins in October), we write to each student asking him to come prepared with as much supporting documentation as possible (we offer to purchase this from him later) in order to give a paper dealing at some length with a major educational problem with which his country is faced. When the student arrives, he and his tutor discuss the proposed paper and put it into final shape. These presentations, which are given very early in the year, invariably form something of a general pattern and help the somewhat disparate group to see how much they really have in common: unemployed school leavers, common imbalances in their educational structures, drop-outs and inefficient primary schools, etc. These common problems having been identified, we attempt to instil into our students, particularly the disillusioned, that there is no alternative to disaster other than by effective planning, and to reinforce this at an early stage we secure the services of planners with wide international experience, such as Guy Hunter, to come in to hold seminars to emphasize the universal nature of these problems.

Having attempted by these means to get the students to remind themselves of their national problems and to see their universal nature, we feel that it is important that they should see that they are themselves, whatever their positions, deeply involved in the whole planning process and that it is therefore important they they should all have some understanding of the mechanics by which that process works or fails to do so. To cover this, a series of seminars led by a staff member, who fortunately has had recent experience at a regional centre, is held, aiming at giving initial insight into the methods of educational planning, the importance of the demographic approach and the interrelationship between economic and educational planning and the nature of the statistical data needed for effective planning. This work is supplemented by further seminars on aspects of economic planning, led by a member of the economics department, and on linear programming and measurement in planning. At this stage, selective use begins to be made of the Fundamentals of Educational Planning, Discussion Series. We use these in our group discussions in two ways: either before the seminars referred to above take place, so that they may provide ammunition to use at the seminars, or in our post-mortems after lectures or discussions. In the Easter vacation we have, through the kindness of this Institute, been able to have a series of seminars here which have been led by senior members of the staff. Subjects discussed have included:

Integration of educational and economic planning;
The use of systems analysis in educational planning;
Integrating external assistance into educational planning;
Cost and financial aspects of educational planning.

Since the University of Reading has always been strong on the agricultural side, the School of Education has maintained a strong interest in rural education. There are at least five courses for senior teachers from England and abroad given annually in aspects of rural education. The teaching staff and contacts are, therefore, readily available for dealing with this important subject, so we hold a series of seminars and discussions on 'The educational administrator and the rural schools'. This year the discussions have been led by an agricultural economist with East African experience, an agriculturalist who was spending a year at the University between FAO assignments in Latin America, a planner of international repute, an educationalist who has wide experience both as an administrator and an 'expert' in rural education in Africa and the Middle East, and the Director of our Agricultural Extension Unit. Fergus Wilson's paper in the Fundamentals Discussion Series has been a valuable piece of supplementary reading for the group discussions during this series.

Before going on to work done on sub-group and individual bases, I should mention two further subjects which seem to us of great importance to the administrator and which certainly fall within the sphere of the teaching of educational planning. Firstly, there is the study of comparative education. This goes on all the time. The ready and continual exchange of experience between students seems to us one of the most valuable things that any course of this nature has to offer. As I have shown, it is given emphasis from the start. During the first term the group attends a major series of lectures by the University Professor of Comparative Education and a further series by an Emeritus Professor of Education on education in England and Wales. As an integral part of the course, the group studies the educational system of another European country in some detail. This has so far been France. This study culminates in a visit to Paris, the time not spent at IIEP and Unesco being taken up with visits to French [illegible]ational institutions and lectures by serving administrators on the French educational [illegible]. Secondly, we pay a good deal of attention to decision-making and man-management. [illegible]sions on these, led by a psychologist, are followed by case study work. This year, the c[illegible]s chosen were two 'causes célèbres', one of national and the other of local interest. Each was presented by a member of the University staff who had, by good fortune, had personal knowledge of his case and had worked with the leading protagonists.

This is about as far as we feel that we can go in this area working as a whole group. I have already referred to the problem of the wide differences in individual experience, needs, interests and abilities that we face each year. We try to overcome this in two ways. Firstly, by giving a good deal of time to study group, or syndicate work as we call it and, secondly, by

doing as much work as possible on individual lines under close tutorial guidance. For the first, we choose annually four or five subjects for study, our choice being based on the majority needs of the students for the year. We have always had several students each year who have been directly concerned with educational planning at the Ministry or regional or provincial headquarters level, and we have formed these students into one of the study groups or syndicates. The method work that they do at this stage is based on the Henley model. They have an adviser, nearly always a staff member, who is required to remain as far as possible in the background, a chairman and secretary, who may or may not rotate according to circumstances, and they work under pressure to prepare a joint report on the subject selected for study. Reports are usually of about three to four thousand words. Finally, the reports are presented to the whole group and the members of the syndicates concerned have to defend these reports against the criticism of their fellows. Over the last three years the Planning Syndicates have produced reports on educational planning with special reference to educational guidance; the role and methods of work of planning units in Ministries of Education and the staffing and place of planning units in Ministries of Education. The adviser is always someone with considerable planning experience. As an example of the work covered in these syndicates, the contents of the second of these reports reads as follows:

(i) general survey dealing with the establishment of planning units in Argentina, Bahamas, El Salvador, Ghana, Nicaragua and the Philippines (the countries from which members of the Syndicate came);

(ii) general appreciation of the problems related to educational planning:
(a) difficulties in implementation;
(b) personnel involved in planning;
(c) place of the planning units;
(d) interdepartmental co-operation;
(e) integration of educational planning with social and economic development;

(iii) a comparative study of educational planning in England and the USSR.

Reference to fifty publications was made in the bibliography.

Whilst one cannot claim great authoritative weight for a report of this nature covering so wide a field, its preparation gave its authors the opportunity for purposeful specialised reading and considerable, and at times heated, discussion during its compilation. It also involved members of the groups in visits to the Planning Division of the English Department of Education and Science (our Ministry of Education) and the headquarters of the Lancashire Education Authority which is responsible for educational planning in one of our scheduled development regions.

One of our objectives has been to give our students practice in digesting a good deal of material quickly and working together in order to prepare a balanced report against time. I should add that we have recently been reconsidering the way in which we have been doing this work. Whilst we still regard it as a useful experience for administrators to work together in this way, it is asking rather too much of groups which, even though small, contain such a wide variety of experience and ability, to read English quickly. Those whose English is good and who have in the normal course of their service had to do committee work leading to reporting, either take on far too much, leaving their less experienced colleagues comparatively idle, or become frustrated by their colleagues' difficulties in trying to keep up. We should, perhaps, depart further from the Henley procedure and put less emphasis on the time factor, jettisoning the term 'syndicate' and substituting something like 'special study groups', but we shall continue these exercises in some form. The students, like ourselves, regard them as very useful and they certainly engender considerable competitive enthusiasm. We also feel that the subjects that we have been choosing may be of too wide a nature and that we must build up a stock of documentation for sub-group use which will enable these groups to deal with more specific problems. Our difficulty here is that even with a sub-group of only six or seven people, it is not always easy to find a subject that is of clear relevance to the needs of all. Apart from having essential documentation readily available for the sub-group, we encourage initiative by acceding to its wishes to send delegates on consultative and fact-finding visits to other universities, the Royal Institute of Public Administration, ODI and Central and Local Government Offices and so on. We follow this practice of making the best use we can of national resources of information and experience as opposed to merely relying on our parochial sources, when we come to what we regard as the most important part of our programme: tutorial work on individual lines.

We are convinced that if, as is inevitable, our students have such wide differences in needs, interests and abilities, it is wrong to think in terms of a completely set programme with so much teaching time allotted to each of the various aspects of administration. Before going further I must emphasize that this variety is not without its very real advantages. It is good for what we term the 'Land Rover' administrator, the man in an outlying provincial or district headquarters, to work closely for the year with what we term the 'air-conditioned' administrator in a Ministry headquarters, and vice versa. The improvement in the standard of debate at our regular group discussions as the year proceeds is evidence of this. However, our responsibility is to make each individual better fitted to undertake increased responsibilities on his return home. It is the individual who matters. The University has accepted our view on this and has allowed our Diploma Award Regulations to be altered so that assessment is now made very largely on the standards of written assignments prepared under tutorial supervision and not, as previously, on the results of a formal final examination. These assignments have to be fairly substantial pieces of work. For example, a Filipino student, who was Dean-elect of the Faculty of Agriculture at a university that had recently achieved university status, arrived faced with a very considerable planning problem, not only over

the recasting of what had been a department of a technological institute into a full university faculty, but also over the change of the institution to its new status, a process in which he, as a senior staff member, was deeply involved. We had ascertained something of his needs by direct correspondence with him before the course began and were able to arrange that he should, throughout the year, attend special tutorials with the Sub-Dean of the Department of Agriculture and with one of the senior Assistant Bursars of our University, both of whom were currently concerned with problems of change and expansion as a result of Robbins. Because of his special experience in this field, the 'tutorial supervision' required by our Regulations, was given by a staff member of our Department of Agricultural Economics. The resulting assignment was a substantial piece of work, well up to post-graduate degree standard.

In dealing at this length on what we are doing at Reading in this field, I have assumed that the problems we are facing regarding the very varied background of our students are common ones. My colleagues in England who are responsible for university courses in administration for students from abroad, Regional Directors' statements during the earlier workshops here and Shukla's comments to which I have referred all seem to confirm this. Whilst we may be accused of making our course so open-minded that everything runs out of the bottom, we feel strongly that we must try and overcome this by following a full tutorial procedure. With two course tutors this means an ideal maximum of fourteen to sixteen students. It also means the co-operation in this tutorial work of other university faculties when special needs have to be met. We also regard it as of great importance that help relevant to the students' needs should be sought on a national basis, particularly from practising administrators. With special reference to my theme, from which I have, I fear, often departed, we hold the following views which we try to put into practice:

Firstly, with the newcomers having this sense of disillusionment about the results of much-publicized educational plans in their countries, to try and restore morale and, by thinking of their home situations and comparing them with those of their colleagues, to appreciate that whatever the fate of their five or ten-year national plans the urgent need is for a rational and systematic approach towards ensuring essential change. We regard this early evangelical work to be later reinforced during our visit here, as essential for all. This work, in order to be effective, must, from our view, start from a consideration of the base of the student's home situation.

Secondly, we are concerned to impart an understanding of what effective planning entails. Hence our close association in the conduct and teaching at the course with the staff of the Departments of Sociology and Economics and with our statisticians.

Thirdly, we consider that individual needs, which we regard as paramount, can only be met effectively by individual treatment through tutorial work and through extended consultation with practising planners on a professional-to-professional basis, whether they be local authority officers dealing with the long-term problems of a change to comprehensive education, heads of expanding schools or institutions who are planning to meet long-term financial and staffing problems, or primary school organizers trying to effect the changes in teachers' outlook and methods as a result of the Plowden and Gittins Reports.

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Appendix A

REPORT OF WORKING GROUP No. 1 ON TEACHING THE ADMINISTRATIVE ASPECTS OF EDUCATIONAL PLANNING

by Professor A. Abdel Dayem
(Beirut Centre)

Introduction

The participants in the Seminar, while recognizing that instruction in the administrative aspects of educational planning must necessarily differ according to the objective of the training given to educational planners, have endeavoured to identify certain essential factors which, in their opinion, should be included in any programme of training in that field.

However, the stress which should be placed on each of these factors, the way in which they should be included in the training programmes and the method of approaching and teaching them, must naturally depend on the nature of the training, its length and its targets, as well as on the conditions peculiar to each country.

From this point of view, and to the extent to which the administrative aspects of educational planning can be considered separately from its other aspects, the participants have singled out certain factors which seemed important to them and which we shall outline in four chapters.

Chapter I: Factors relating to the administration of educational planning in general

The role of national policy in educational planning and the interdependency between education and national policy: the participants brought out, in this connexion, the importance which should be given in teaching the administrative side of educational planning to the different kinds of organization and control of general and educational planning according to the respective political system (required, guided or suggested planning, etc.), the basic role of the political authorities in the establishment of the general educational policy and the planning targets, and in the implementation of the plan, and also the relationship which should be established between the political authorities and the planning organization, etc.

The study and analysis of the educational system (understood in the broadest sense of this term as including school, pre-school and extramural instruction - public and private instruction -

adult education and mass culture - permanent education, etc.) in the context of the administrative, economic, social, political, demographic and cultural structure of the country. (The accent must be placed on the administrative structure of the system.)

The democratic nature of the plan and the degree of participation of all the people in educational planning (with emphasis on the means to ensure such participation.)

Chapter II: Factors relating to the organization of the machinery of educational planning

The organization of educational planning (the educational planning service or unit: its structure and location, educational planning committee deciding on the targets of the plan, specialized commissions or branches) from a two-fold point of view:

- Internally - the structure of the educational planning agency and its relations with other administrative services of the Ministry of Education; and
- Externally - the external relationships between this agency and all other agencies or services concerned in planning at the various stages and in particular with the national planning service.

Special attention must be given to the initial efforts and steps necessary for the creation and recognition of the educational planning services.

Interdependency between the educational planning organization and the financial organization of the country. Stresses the importance of a study to find means of improving the structure of the ordinary type of budget in order to make it more operative and better adapted to the achievement of the targets of the educational plan and demonstrating the importance of programme budgeting (reflecting the mental attitudes or motives thus revealed and considering the close relationship which should exist between the plans and their implementation through the method of construction of the budget.

The various levels of the educational planning organization: national level - regional level - institutional level - sector level, etc.

Chapter III: Factors relating to the organization of the educational planning process

Development of the educational planning process in its different stages - establishment of a time-table for the preparation of the plan - division of the educational plan into planning programmes and specific projects, etc. In this connexion, the participants stressed the importance of the operational aspects underlying the work of preparing an educational plan, the necessity of working out material and financial programmes in the actual preparatory stage of the plan and the practical steps and procedures best indicated for the achievement of the targets of the plan.

In this approach, they showed the importance of examining the processes involved in the microplanning of education (planning at the regional and institutional levels and educational sub-system

planning). They stressed in particular the good results which may be produced by this greater interest in the operational aspects as regards the bridging of the gap between the planning and the administration of education.

The implementation of the educational plan with all its administrative implications: the promulgation of new laws and legislative measures - administrative reorganization - role of regional agencies and individual institutions - interministerial and interdepartmental co-ordination - limitations imposed by the annual budget - psychological and social resistance - pressure groups - inspection of progress in the execution of the plan - reappraisal and further clarification of targets - measures to be taken in the event of unforeseen developments, etc.

The planning and administration of qualitative pedagogical reforms and their adjustment to the educational plan. Special interest should be given to the part which such reforms may play in the improvement of the internal and external efficiency of education.

Chapter IV: Factors relating to an administrative renovation

Structure of the administrative pyramid involving the levels of authority and of function and the various possible divisions of the administrative services (functional, operational and executive services).

An examination of the problems - urgent and routine - encountered by an educational administrator in his daily work and the ways and means to deal with these problems. Particular stress must be placed on the tasks involved in this routine administration and in the personal qualities which an administrator should have in order to cope with them successfully.

Knowledge of organization theories and of the different concepts of organization, with emphasis on the part played by human relations and the human factor in administration: administrative psychology - energy and initiative of groups - leadership, etc.

Reorganization and modernization of educational administration, with special attention to be given to the establishment of an 'innovation unit' in the Ministry of Education and the role which it should play in new administrative developments. To be mentioned in this connexion are the experiments conducted in countries which have established units known as Organization and Method (O and M) services with a view to improving the organizational structure, simplifying procedures, ensuring optimal utilization of administrative personnel, arranging hourly work schedules, using material and equipment better adapted to the job to be done, etc.

Knowledge of new methods of management1/ and the part which they can play in the efficiency and logic of decisions. The general spirit of these methods, based on operational research and systems analysis, will be more important than their technical details, which are complicated and

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1/ Special attention should be given to the more general aspect of innovation in education and to the part which the administration can play in a renovation of the general educational system.

difficult to apply in many countries. Special initiation in certain simple decision-making techniques (such as simulation) is always possible and is useful. In teaching these methods, it would be important to show how they can help in solving certain special problems of school policy and contribute effectively in dealing with problems of educational management: siting of schools - organization of transport facilities - construction of school buildings - arrangement of classrooms - recruitment of teachers - pupil selection, etc.

Knowledge of mechanical aids and equipment for administrative purposes and in particular the part which can be taken by computers in the general administration of education and in certain administrative problems of individual schools.

Appendix B

REPORT OF WORKING GROUP No.2 ON RESEARCH NEEDS OF THE ADMINISTRATIVE ASPECTS OF EDUCATIONAL PLANNING

by Professor J. Sheffield
(Columbia University, New York)

Introduction

In addressing itself to the problem of identifying critical areas for research into the administrative aspects of educational planning, the working group saw itself as part of a broader effort on the part of the Institute to up-date the 1965 Inventory of Research Needs.1/ The group agreed that much educational planning to date had been primarily a statistical exercise of setting targets based on shaky data and questionable assumptions. Too often this planning was linked with national economic planning at the macro-level, which meant that little attention was given to detailed analysis at the project level. In order for effective planning to become a reality more attention must be given to the social and political forces within which priorities must be identified and plans must be implemented. Since the goal of educational planners is to bring about changes in the system, we must learn more about the system in order to design a strategy for changing it.

Communication and decision-making

The study of organizations has often focussed on structure, without sufficient attention to function; the process and purpose behind the structure. In education, the process involves a continuous interaction of policy, planning, implementation and evaluation. Our concern should be to learn how this process takes place in order to improve its efficiency.

This first requires an analysis of the decision-making process, starting with an inventory of all the decisions to be made and the information needed for each decision. From this point comunications channels can be identified which lead to the most efficient decision-making structure. The ideal length of the communication channels will thus determine such questions as the degree of centralization or decentralization. Thus by mapping flows of information between decision points, a communications model emerges which can be used to design a structure.

1/ Educational planning: an inventory of major research needs. Paris, IIEP, 1965.

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When one starts with the structure, on the other hand, one creates a communications system divorced from actual functions. The result of this pattern is a rigid bureaucracy in which many decisions are made via an informal communications system ('the grapevine').

Failure to implement educational plans is frequently due to communications difficulties within the administrative structure. While the complexity of these problems will vary from country to country, effective planning will require both general research and detailed analysis of the particular situation with its unique set of political and cultural constraints.

Participation and decision-making

A conceptual framework is needed which can identify the degree of participation in decision-making in educational planning. For example, on the one extreme, an administrator can decide on a given policy in total isolation from his subordinates. On the other hand all concerned might be actively involved in each decision, either directly or through representatives. Between these two extremes many levels of involvement can be identified. In each decision the critical issues are what kind of participation, by whom and at what stage in the process. For example, if the only involvement of department heads in the formulation of a new plan is in the compilation of statistical data, their participation in the decision could be said to be minimal. The implementation of any programme is to a large extent dependent upon the degree of involvement of administrators in the programme's development.

Other areas of concern

In the light of these general issues, the working group identified a number of specific questions on which research is required. Because the details of the research projects will have to be worked out in each specific instance, the following list is merely an outline of possible questions to be considered.

A. Administration

- What backgrounds to administrators have?
- What aspects of their roles do they feel inadequately trained for?
- How can they develop these skills?
- How can administrators work together to maximize their managerial skills?

B. Finance

- What is the most efficient mix of central government funds, local taxes and school fees?
- How can managerial techniques make these scarce resources go further?
- How can financing of education best contribute to the improvement of standards and the equalization of educational opportunity?

C. Institutions

- How can educational institutions best be organized for change?
- What lessons can be learned from other fields concerning adaptation and innovation?
- How can one evaluate an effective school or school system (beyond the usual measures of inputs or student achievement)?

D. Organizing for research

- How can countries identify research priorities?
- What types of institutions are most effective for research?
- How can universities and government departments work together with a minimum of duplication? (This also applies to institutions in other countries.)
- How can useful research findings be effectively disseminated? (what are the strategic points for diffusion?)

Areas of research

Contribution of research institutions (for instance pedagogical institutes) and institutions including research sectors or activities (for instance Faculties of Education) to change - both as regards innovation and diffusion of innovation.

Sub-problems:

(a) What are the problems to be researched by these institutions according to the nature - developed or underdeveloped - of the country or region?
(b) What is the best place for these institutions, according to the country?

For instance:

Is it necessary, in developing countries (Brazil and Iran can afford good examples) to link deeply pedagogical institutes to executive instances (Ministry or Secretariat of Education) in order to avoid both academic projects of research and the non-utilization of the results of research (even those of pragmatical nature) by the executive instances? Evidently some dangers are involved in this connexion (possible political submission or dependence on scientists, narrowness of the fields of research etc.), but, on the whole, the imbalance is not necessarily negative. The exact imbalance has to be researched, country by country, and according to the degree of development.

Is not the current position of Faculties of Education, within universities, in developing areas, a factor of ineffectiveness, since the 'consumers' of the products (teachers) of these faculties are not necessarily linked to universities? Frequently there is a tendency, from part of educational administration of first and second levels, not to utilize or under-utilize these teachers (and the eventual innovation they incorporated and can diffuse) and to prefer other products, formed rapidly by centres of training directly linked to executive instances. Thus the Faculties of Education are not fruitful and, frequently, accepting this situation (which presents certain advantages: tranquility, possibility of long-term research, political independence etc.), tend to close themselves within an ivory tower, affording specialists and kinds of formation useless for the improvement of the educational system.

What are the means to avoid this ineffectiveness and the duplications it implicates.

Appendix C

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